



ANOKA

TECHNICAL COLLEGE

Academic Catalog

2016-2017

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Anoka Technical College (ATC) has made every effort to ensure the accuracy of the material contained within this catalog as of the publication date. Anoka Tech reserves the right to make changes to the content of this catalog and other college publications, policies, procedures, program information, fees, calendars, bulletins, or announcements without notice. Revisions to information contained in this publication will be posted to the official College Web site at: AnokaTech.edu/.

Each student is responsible for being familiar with the information appearing in this catalog and the Student Planner. Failure to read the regulations will not be considered an excuse for noncompliance. Anoka Technical College acknowledges its legal and moral responsibility to ensure equal employment and educational opportunities with no discrimination regarding race, sex, color, creed, religion, age, national origin, disability, marital status, status with regard to public assistance, sexual orientation, membership or activity in a local commission as defined by law. The College is in compliance with Title IX and Section 504 and will continue its affirmative action commitment to removing barriers to equal employment and educational opportunity.

This information is available on the Web for those needing to access it in alternative format.



A MEMBER OF THE MINNESOTA STATE COLLEGES AND UNIVERSITIES SYSTEM

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Important Numbers & Academic Calendar

College Telephone Directory

General Information	763-433-1100
Enrollment Services	763-576-7710
Adult Basic Education	763-576-7840
Bookstore	763-576-4700
Business Office	763-576-7720
Counseling	763-576-4036
Disability Services	763-576-4069
Financial Aid	763-576-7730
Job Placement Services	763-576-7780
Library	763-576-7850
Placement Testing (Accuplacer)	763-576-7830
Professional & Workforce Training	763-433-1200
Records & Registration Office	763-576-7740
Student Senate	763-576-7890
Veterans Resources	763-576-7790



In case of emergency call 911 immediately, then call the Security Office at 612-819-4585 and advise them that 911 has been called and for what reason.

Academic Calendar

Fall Semester 2016

First Day of Fall Semester	Monday, August 22
Holiday Observed, College Closed, No Classes	Monday, September 5
No Classes	Thursday, October 20 to Friday, October 21
Holiday Observed, College Closed, No Classes	Friday, November 11
Holiday Observed, College Closed, No Classes	Thursday, November 24 to Friday, November 25
Commencement Ceremony	Thursday, December 15
Last Day of Fall Semester	Friday, December 16

Spring Semester 2017

First Day of Spring Semester	Monday, January 9
Holiday Observed, College Closed, No Classes	Monday, January 16
No Classes	Friday, February 17
Holiday Observed, College Closed, No Classes	Monday, February 20
Spring Break, No Classes	Monday, March 6 to Friday, March 10
Commencement Ceremony	Thursday, May 11
Last Day of Spring Semester	Friday, May 12

Summer Semester 2017

First Day of Summer Session	Tuesday, May 30
Holiday Observed, College Closed, No Classes	Tuesday, July 4
Last Day of Summer Session	Friday, July 21



President's Greeting



Welcome to Anoka Technical College & our Academic Catalog!

Thank you for choosing Anoka Technical College. We are thrilled we will be able to see you achieve your goals. Anoka Tech's faculty and staff are here to help you and are happy to do so.

Located in the historic river city of Anoka, MN, Anoka Technical College has provided technical training and degrees to since 1967. Our programs bring you closer to career growth, earning potential and confidence. Faculty members are innovative educators – experts in their career fields. As an Anoka Tech student, your studies move beyond lecture and dive into hands-on learning.

The alignment between Anoka-Ramsey Community College and Anoka Technical College provides opportunities for outreach and partnership. Look to our aligned college as an additional resource for your educational needs.

Discover what our college has to offer you! This catalog, as well counselors, advisors, faculty, staff and your fellow students are your resources for personal and educational growth.

Thank you for choosing Anoka Technical College!



Kent Hanson, Ph.D.

President, Anoka-Ramsey Community College & Anoka Technical College



Student Handbook Guide

Anoka Technical College has a number of policies, procedures, services, and programs in place to assist students in achieving their graduation, employment and/or transfer goals. Below is a summary of the some of the key content found in the online student handbook.

College and Program Accreditation <ul style="list-style-type: none"> • Accreditation
Programs and Gainful Employment Data
Academic Policies and Procedures <ul style="list-style-type: none"> • Academic Petitions • Attendance
Admission Policies and Procedures <ul style="list-style-type: none"> • Admission • Visiting Students • Post-Secondary Enrollment Options and Concurrent Enrollment
Registration Policies and Procedures <ul style="list-style-type: none"> • Adding, Dropping, and Withdrawing from Classes • Alternative Sources of College Credit • Enrollment Status • Grades and Grading • Grade-point Average • Grade Reporting • Academic Honors • Registration for Classes • Transfer Policies
Financial Aid Policies and Procedures <ul style="list-style-type: none"> • Financial Aid Eligibility • How to Apply • Types of Financial Aid • Student Loan Repayment • Bookstore Deferments • Consortium Agreements • Satisfactory Academic Progress • Withdrawals and Financial Aid Eligibility • Cost of Attendance • Loss of Aid Due to Drug Offenses

College Policies and Procedure Highlights <ul style="list-style-type: none"> • Academic Forgiveness • Computer Usage • Americans with Disability Act • Data Practices • Copyright Infringement and File Sharing • Discrimination and Harassment • Drug Free Campus Policy • E-Mail Communication • Graduation • Parking • Student ID's • Placement Testing (Assessment Policy) • Refunds and Withdrawals • Satisfactory Academic Progress • Sexual Assault and Sexual Violence • Student Academic Due Process • Student Conduct Policy • Student Data Privacy • Student Academic Records • Transcript Requests
Student Disclosure Report
More College Policies and Procedures <ul style="list-style-type: none"> • Student Grievance Policy • Tuition and Fees • Tuition Policy
Student Right-to-Know Graduation and Transfer Rates
Security, Safety, Emergency Response, and Student Health <ul style="list-style-type: none"> • Campus Safety and Security Report • Closing for Weather • Conceal and Carry (weapons) • Emergency Notification and Procedures • Sexual Assault Prevention and Response • Timely Warning Procedure
Student Services <ul style="list-style-type: none"> • Student Body Profile • Student Life and Activities • Student Support Services



Introduction

About Anoka Technical College

Founded in 1967, Anoka Technical College is a member of the Minnesota State College and Universities system (MnSCU) and offers more than 35 career programs leading to occupational careers. For more information, visit www.anokatech.edu.

College Mission, Vision and Goals

Mission: Provide innovative career and technical education to help our students and communities live and learn well.

Vision: A vital student-and community-focused institution, providing the finest career and technical education in Minnesota.

The following are goals of Anoka Technical College:

- Commit to student success
- Promote academic excellence
- Foster a vibrant, sustainable organization
- Establish a strong identity and reputation for excellence
- Strengthen and extend meaningful partnerships

Fast Facts

- **Largest programs:** Practical Nursing, Information Technology, Welding, Medical Assistant
- **Unique programs:** Broadcast Captioning, Judicial Reporting, Occupational Therapy Assistant, Golf Course Grounds Management, Surgical Technology, Medical Scribe Specialist, Gaming Programming Technology, and online Legal Administrative Assistant programs
- Accredited by the Higher Learning Commission, a Commission of the North Central Association of Colleges and School

Location

Anoka Technical College is located in the historic river city of Anoka, MN on 29.3 acres along US Highway 10, about two miles northwest of downtown Anoka. The one-story, 295,000 gsf main building is a former manufacturing facility built in multiple stages in the 1950s and purchased and renovated for vocational/technical education between 1965 and 1969. The building has received a major renewal upgrade in 2002 that addressed long-standing building improvement needs. The campus is highly visible due to its location along a major Twin Cities commuter highway (Hwy 10) and light rail line (Northstar Corridor).

2016 Student Profile

- 87% of our first year full-time students receive some form of financial aid or scholarship
- 51% receive a Pell Grant
- 41.7% of our students are male and 58.3% are female
- 51% of our students are full-time and 49% of our students are part-time
- Our fall to fall retention rate is 55% (full-time students)
- Our overall graduation rate for males is 29% (full-time students)
- Our graduation rate for females is 29% (full-time students)
- Our overall transfer rate is 12%

- Our ethnic diversity is:
 - 79% White
 - 7.0% Black or African American
 - 4.0% Hispanic/Latino
 - 4.0% Asian/Pacific Islander
 - 3.1% Two or more races
 - 1.0% American Indian or Alaskan Native
 - 89.4% of our career technical program graduates were employed (preliminary 2013-2014)

Source: IPEDS College Data 14-15 Enrollment Data 2014 Statistics/Minnesota State Colleges and Universities

Accreditation

Anoka Technical College is accredited by the Higher Learning Commission. The college was granted initial accreditation in 1999, and its most recent accreditation was granted in 2014. The College is due for reaccreditation in 2024. Higher Learning Commission, 230 S. LaSalle St, Ste 7-500, Chicago, IL 60604, 800-621-7440

All programs offered at Anoka Technical College are approved by the Minnesota State Colleges and Universities system, the Minnesota Division of Rehabilitation Services, and the state-approving agency of Veterans Education. In addition, the following programs are accredited by outside accrediting organizations: Health Information Technology (Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM)); Medical Assistant (Commission on Accreditation of Allied Health Education Programs (CAAHEP)); Occupational Therapy Assistant (Accreditation Council for Occupational Therapy Education (ACOTE)); Practical Nursing (MN Board of Nursing); and Surgical Technology (Commission on Accreditation of Allied Health Programs (CAAHEP)).

Other programs within the colleges are certified, licensed or approved by outside agencies, but do not use the term accreditation. Those programs are Construction Electrician (State of MN Department of Labor and Industry), Emergency Medical Services (State of MN Emergency Medical Services Regulatory Board), and Judicial Reporting (National Court Reporters Association).

Equal Opportunity Institution

Anoka Technical College acknowledges its legal and moral responsibility to ensure equal employment and educational opportunities with no discrimination regarding race, creed, disability, color, religion, national origin, sex, sexual orientation, age, marital status, or inclusion in any group or class protected by state or federal law.

Anoka Technical College is committed to compliance with Title IX, Section 504, the Americans with Disabilities Act, and all state statutes and regulations relating to removing barriers to equal employment and educational opportunity.

Anoka Technical College is a member of a college community that is committed to creating a positive, supportive environment and welcomes a diversity of opinions and ideas for students, faculty and staff of all cultures. The college will not tolerate racism, harassment, or any derogatory remarks about a student's race, sexual orienta-



tion, religion, class, gender or physical limitations. Anoka Technical College believes the best and most effective learning environment for tomorrow's leaders is in a multicultural environment.

This catalog is also available in alternate formats. Contact the Office on Disabilities at 763-576-4069.

Admissions

Enrollment Services Admission Policy

Anoka Technical College is committed to open admissions for students meeting one of the following requirements:

1. A high school diploma or GED (General Equivalency Diploma) or
2. Current high school students who meet requirements for Postsecondary Enrollment Options (PSEO) program or
3. Applicants without a high school diploma or GED who take the ACCUPLACER test and meet the "Ability to Benefit" standards.

Students who are unable to submit a high school transcript or a copy of high school diploma must meet "Ability to Benefit" assessment standards.

The full Admissions Policy can be found in the Student Handbook.

Immunization Policy

All students who are registered for more than one class must provide proof of current immunization by the 45th day of the semester in order to register for the next semester. However, students who were born in 1956 or earlier or have graduated from a Minnesota high school since 1997 are exempt. All students entering a health occupation program that requires an off-campus clinical experience are required to provide acceptable proof of required immunizations.

Transfer Credit Policy

A student wishing to transfer credits into Anoka Technical College must complete the admissions process, be accepted into a program of study, and have official transcript(s) from previous college(s) sent directly to Anoka Technical College's Office of Records and Registration. Transcripts from MnSCU institutions will automatically be pulled from eTranscripts once the student has been accepted.

All other transcripts must be official which means that the transcript must be received in a sealed envelope. If delivered in person, a transcript must be delivered unopened with the official seal intact. Student copies and faxed transcripts are not considered official.

The evaluation will be completed according to MnSCU Board of Trustees Policies and Procedures and will involve the following three conditions:

1. Educational quality of the learning experience which the student transfers,
2. Comparability of the nature, content, and level of the learning experience offered by the receiving college, and

3. Appropriateness and applicability of the learning experience to the programs offered by the receiving higher education entity in light of the student's educational goals

General Transfer Policies

Only those courses that are applicable to a student's certificate, diploma or degree will be considered for transfer. Anoka Technical College will accept in transfer courses that it determines to be comparable or equivalent to specific courses it offers.

Technical College Credits

Transfer of technical credits will be considered for courses that have been completed within five years prior to application for admission to Anoka Technical College. Students with technical courses which were completed more than five years prior to application may be able to use the prior learning assessment process to demonstrate course content mastery and receive credit.

Transfer of MnTC and Other Courses

Anoka Technical College will accept a Minnesota Transfer Curriculum course or goal area as determined and documented by the sending Minnesota State College and University (MnSCU) institution. There is no guarantee that courses from private and non-Minnesota colleges will satisfy MnTC goals, even if the courses may be transferable as electives. Such courses are evaluated on an individual basis.

Anoka Technical College will accept courses from other institutions with grades of D or higher. While grades of D will be accepted by the college, they may not be accepted by individual departments due to varying departmental policies regarding acceptable grades for graduation.

Transfer Resources

- Transferology
- Anoka Tech Articulation Agreements
- MnTransfer
- iSeek

Appealing the Transfer Evaluation

New or continuing students unsatisfied with the decision regarding transfer of credit should complete the Appeal of Transfer form, located on the College web site. If a student is unsatisfied with the transfer appeal decision, the student may appeal the decision at the system level to the Senior Vice Chancellor of Academic and Student Affairs. The decision of the Senior Vice Chancellor is final.

Credit for Prior Learning (CPL)

Credit for prior learning is a process in which students get academic credit for learning they have gained through on-the-job experiences, attendance at workshops or conferences, volunteer activities, business ownership, self-study. It is important to remember that recognition of prior learning is not based on experience, but on what has been learned from that experience.

The cost per credit is \$75. Anoka Technical College adheres to MnSCU policies and procedures on CPL. Interested students should contact the Office of Records and Registration at 763-576-7740 or



visit the College website at AnokaTech.edu.
Anoka Tech may accept the following as credit for prior learning:

- College Level Examination Program (CLEP)
- Advanced Placement (AP)
- Prior Learning Assessment
- Credit by Examination
- Articulated College Credit (Tech Prep)
- Military Education Experience

Records & Registration

Registration

Students are responsible for timely and accurate registration. Students are liable for tuition and fees for all registered courses. Students must withdraw or drop their registration online or in writing at the Office of Records and Registration if they do not plan to attend Anoka Technical College. Please note that course registrations will not be dropped for students who have a processed financial aid application (FAFSA). Deadlines and restrictions apply.

Non-Degree Seeking Students

This option is designed for students who are not seeking a degree or certificate, do not want financial aid, and know the specific classes they want to take. Students should complete a Non-degree/Visiting Student form and submit it along with an immunization form to the Office of Records and Registration. The form is available online at www.anokatech.edu.

Change from Non-Degree Seeking to Admitted Status

To change from a non-degree/visiting student to admitted, students should complete the steps for regular admission. Contact the Office of Enrollment Services at EnrollmentServices@anokatech.edu for additional information.

Senior Citizen Registration Policy

Senior citizens who are Minnesota residents and 62 years of age or older may register for credit courses on a space-available basis at a reduced fee of \$20 per credit plus standard fees. Registration for Minnesota senior citizens begins the second day of the term. Senior citizens who register before the second day of the term are required to pay full tuition and fees. To audit a course at no charge on a space-available basis, seniors must notify the Office of Records and Registration of their intent at the time of registration.

Change of Registration (adds and drops)

Students have five business days from the first day of the term to add or drop individual classes. All add or drops must be processed online and must be completed by the end of the fifth business day by 11:59 pm. This five day period is called the "Add/Drop period," when students are able to drop classes with a full refund and without a W grade recorded on their transcript. For classes beginning after the first week of the semester, students have one (1) business day from the start of the class to add or drop from individual classes.

Called to Active Duty Withdrawal Policy

Guidelines for Reservists and National Guardsmen called to Active Duty are consistent with MnSCU Board Policy 5.12.1, a student who is a member of any branch of the U.S. military reserves, who is unable to complete a course or courses due to active duty call-up shall

be offered the following course cancellation and/or completion options. In all cases, the student is required to provide the college with a copy of his/her call-up papers.

1. A student may receive a 100% refund of tuition and fees. A student receiving financial aid who chooses this option is required to repay 100% of grants and loans (not work study) that has been disbursed for the term.
2. An instructor may agree to assign the student an incomplete even though less than 75% of the coursework has been completed.
3. If, in the instructor's judgment, a student has completed sufficient coursework to earn a grade of C or better, the instructor may assign credit (a grade) for completion of a course.
4. A student who does not find one of the first three options suitable, may withdraw from the course. A withdraw request will be honored even if the withdrawal deadline has passed.

Additionally, it is strongly recommended for financial aid recipients to check with the Financial Aid Office.

Grades

Grades will be available on the web approximately four days after the last day of the semester. Students can access their grades on eServices. They also may obtain and print an unofficial transcript online.

Official Transcripts

Official Transcripts can be requested in three ways:

- **Online** at www.getmytranscript.com
- **In person** at the Office of Records and Registration
- **By Mail:** Students can mail the Transcript Request Form located on the college website. After the Office of Registration receives the transcript request form and the transcript charge of \$7.50 has been paid, the transcript will be issued.

If no holds exist on the student record, Anoka Tech will send official transcripts to the institution or organization which the student has requested.

Students are not required to pay for transcripts that MnSCU institutions can access via eTranscripts.

Tuition & Fees

Tuition and fees for each term are based upon the number of credits a student enrolls. The 2016-17 general tuition and fees rate is \$184.47 per semester credit. Tuition and fees are set by the Board of Trustees of the Minnesota State Colleges and Universities system and are subject to change without notice. Some courses or academic programs have differential tuition rates because of the increased cost of offering courses or academic programs. Please refer to the college (AnokaTech.edu) for up-to-date tuition and fee rates.

Programs with Differential Tuition and Fees

- Judicial Reporting \$283.04 per credit
- Surgical Technology \$225.65 per credit
- Practical Nursing \$205.06 per credit
- Welding \$205.06 per credit



- Online courses \$194.08 per credit

Fees included with Tuition

The following fees are set annually and may be found on the college website. The following fees are charged on a per-credit basis and included in the tuition/fee rate:

MN State College Student Association fee

- Parking/Access fee
- Student Association fee
- Technology fee

Other Fees

- Non-sufficient fund (NSF) fee \$25
- Late fee (maximum per semester) \$50
- Payment plan fee (maximum per semester) \$30
- Placement (Accuplacer) retest fee \$10
- Prior Learning Assessment \$75 per credit
- Transcript \$7.50
- Student ID Replacement Card fee \$5.00
- Graduation Fee \$40.00

Drop for Non-Payment Policy

Students must pay or make payment arrangements for their tuition and fees by the due dates published on the college's academic calendar located on the website. Failure to pay tuition and fees may result in courses being dropped for non-payment. Please note that courses will not be dropped for students who have applied for financial aid. Course registrations will not be dropped even if a student is not approved for financial aid. Students who do not intend to take courses during a given semester must officially drop their courses online before the start of the term.

Tuition Refund Policy

Full refunds will be given for any course cancelled by the college. In order to receive a 100% refund for tuition and fees, students must drop their courses online via their eServices account prior to the 5th business day of the semester. Tuition Refunds after the 5th business day of the semester are prorated according to the chart found here: AnokaTech.edu/BecomeStudent/TuitionFees/Withdrawals%20Refunds.aspx

Exception to Policy

Students have 60 days after the end of the semester to petition for a late course withdrawal or a late complete withdrawal with partial refund. All petitions must be signed by the student, legal guardian, power of attorney or executor (in case of death). Documentation may be required if the petition is from someone other than student.

Students should complete the Exception to Policy Form located in the Student Forms section of the college website and include a written statement describing the circumstances and reasons for their appeal and any required documentation.

Financial Aid

Availability of Financial Aid

Financial aid is available for full and part-time students. To be eligible for financial aid, students must be accepted into a program that is financial aid eligible, is at least 16 credits in length, and is leading

to an AAS degree, diploma or certificate. There are both state and federal regulations related to financial aid, and these regulations are subject to change.

If you have been arrested, charged, or convicted of any criminal offense, you should investigate the impact that the arrest, charge, or conviction may have on your chances of employment in the field you are intend to study or on your chances to obtain federal, state, and other higher education financial aid.

Financial Aid Programs

Anoka Technical College participates in federal and state grant, loan, and work-study programs. Unless otherwise indicated, eligibility for aid programs is based on the following:

- An undergraduate student who does NOT have a bachelor's degree
- A US Citizen or eligible non-citizen
- Earned a High School Diploma or GED
- Admitted to the college as degree-seeking student enrolled in an eligible program
- Eligible programs must be at least 16 credits in length and leads to an AAS degree, certificate or diploma
- If male, be registered with the Selective Service Administration
- Maintaining SAP (Satisfactory Academic Progress) as defined in the Colleges Satisfactory Academic Progress Policy which can be found in another section of the Student Handbook.
- Not in default on a federal student loan or owe an overpayment on a federal grant
- Must not have been convicted of a drug offense while receiving federal aid Students will be considered for all financial aid programs in which they are eligible to receive which may include:
 - Federal Pell Grant
 - Federal Supplemental Educational Opportunity Grant (SEOG)
 - Minnesota State Grant
 - Minnesota Child Care Grant
 - Minnesota GI Bill
 - Minnesota SELF (Stundet Educational Load Fund) Loan
 - American Indian Scholarships
 - o Federal Bureau of Indian Affairs
 - o Minnesota Indian Scholarship Program
 - College Foundation Scholarships
 - Federal and State Work-study programs
 - Federal Direct Loans
 - o Subsidized Loan
 - o Unsubsidize
 - o Federal Direct PLUS (Parent loan for under graduate students)

Loan Entrance Counseling – must be completed for all first-time federal direct loan borrowers before loan funds can be disbursed. Additional information is provided on your award letter.

Exit Counseling – must be completed after graduating or dropping below half-time. Students will be notified of this requirement, and be provided information and directions for completing this requirement, by the financial aid office at the appropriate time.



Loan Repayment – begins six months after student is no longer enrolled at least half-time.

Applying for Financial Aid

All students are encouraged to apply for financial aid whether or not you think you may be eligible. To apply for financial aid, students must complete the FAFSA (Free application for Federal Student Aid) at www.fafsa.gov. We recommend that you apply for financial aid each year by mid-March or as soon as you complete your federal income tax returns.

Returning students should complete a renewal application also available at www.fafsa.gov. Your FAFSA requires an electronic signature or FSA 10 which can be obtained at fsaid.ed.gov

The Federal processors may require that the college verify the accuracy of the data on your FAFSA through a process called “verification”. Approximately 30% of all students are selected for federal verification. If you are selected for verification, you will receive an email from the Financial Aid Office requesting additional information which may include a copy of student and parent (if dependent student) or spouse (independent student) IRS Tax Transcript, W-2's, untaxed income information, and other household information.

When your financial aid application has been completed, you will receive an Award Letter, via your student e-services account, from the Financial Aid Office which details your financial aid eligibility for grants, work-study and loans including required enrollment levels.

Student Resources

Enrollment and Success Coaches, 763-576-7710, Rm 117

Assistance provided to create a personalized success plan to reach your academic, career or personal goals. Walk-ins welcomed, appointments have priority.

Counselor

Student Success Center, 763-576-4036

Academic, career, and personal concerns counseling. Walk-ins welcomed, appointments have priority.

Career Center

Student Success Center, 763-576-4237

Staffed by a representative from the Minnesota WorkForce Center-Anoka County. Assistance with resumes and job search.

Computer Learning Lab

Academic Resource Center, 763-433-1510 (Press 2)

Computer and Internet access for students who are taking classes at Anoka Technical College. Complete assignments; work on group projects, and complete coursework for on-line classes. Assistance provided by Computer Lab Assistant (CLA) and others with computer expertise.

Testing Center

Room 103, 763-576-7830

Testing services include Accuplacer, ATI TEAS, make-up testing, distance proctoring for students attending other colleges within the MN State system, fee-based distance proctoring for non-MN State students, fee-based licensure exams. Test accommodations provided only

per referral from the Office on Disabilities. Call for details or stop by the Testing Center.

GED Testing

Student Success Center, 763-576-7840

Mondays 10 am to 2 pm (subject to change)

For individuals who are registered to take their GED test. Register to test at GED.com

Library

Academic Resource Center (ARC)

Research and reference assistance, request Student IDs, fax transmittal and photocopying services, most textbooks on reserve.

Service Hours:

Monday—Thursday from 7:30 am to 8 pm

Friday from 7:30 am to 4 pm

Metro North Adult Basic Education (ABE)

Student Success Center, 763-576-7840

Free program.

Prepare for college, improve basic reading, writing, and math skills, prepare for your GED or adult diploma, and prepare for Accuplacer testing and retesting, English Language Learner classes. Peer Tutoring Program

Peer Tutoring Program

Room 130, 763-576-4069

Improve academic performance in technical coursework by working with a peer tutor. Free service. Peer tutors are faculty-recommended, exceptionally knowledgeable fellow students enrolled in the same program as you. Tutor schedules are available in the Writing Center Room 130.

Math Lab

Room 173

Free service for students seeking assistance with math. Drop-in tutoring provided peer tutors and math instructors.

Writing Center

Room 130, 763-576-4069

Free service for students seeking assistance with writing. (See schedule in Writing Center for hours.)

Veterans Center

Room 333

Veterans Center Hours:

Monday—Friday from 7:30 am to 4:30 pm

Veterans to College (V2C) - Anoka Technical College Veteran and Family Support Program

Connect veterans, reservists, and their families to information and support services needed to successfully achieve educational goals.

North Metro Regional VA Coordinator

Charles Egerstrom, 763-433-1113 cegerstrom@anokaramsey.edu

Veteran's Certifying Official 763-576-7740



Office on Disabilities

Student Success Center, 763-576-4069

Accommodations and service delivery provided for students with a documented disability. Call for appointment. Bring documentation to your scheduled meeting.

Student Life

Anoka Technical College is committed to providing a wide range of student life organizations that advance the college mission to help students and communities to live and learn well.

The student organizations are multidimensional and give students an opportunity to become engaged in campus activities to balance work and life, meet friends, and develop leadership skills and to enjoy the college experience. The student life organizations at Anoka Tech stand out because they are built around student and community interests and needs. To learn more, AnokaTech.edu.

Multicultural Student Center, Rm 177

Welcome! Lali! Willkommen! Bienvenue! Xin Chào, Bienvenidos! No matter how you say it, the Multicultural Student Center at Anoka Technical College welcomes many different cultures and ethnicities. Truly unique to a two-year technical college, the center serves as a meeting place and resource center for students, faculty, staff and other community organizations. STOP IN TODAY!

Student Senate, Rm 175

The Student Senate serves as advocates for all Anoka Technical College students. In addition to being the voice in front of local and state elected officials for fighting for lower tuition and

more financial aid, the Student Senate represents the student body at meetings and in college committees. They also subsidize the cost of professional conferences and competitions for students and provide social, educational, cultural and leadership activities for the entire college.

The Student Senate meetings are open to all students. The meetings are held on the 1st and the 3rd Wednesday of the month.

Phi Theta Kappa

Phi Theta Kappa's mission is two-fold:

1. recognize and encourage the academic achievement of two-year college students and
2. provide opportunities for individual growth and development through participation in honors, leadership, service and fellowship programming.

Veterans to College (V2C)

V2C is a veteran support program dedicated to helping veterans, reservist and family members transition from military to civilian life through educational opportunities while fostering a sense of support and community. Anoka Technical College welcomes and supports veterans, reservists and their family on campus and recognizes the contributions they make as citizens and as students. We are proud of the level of diversity and academic excellence that veterans bring to our campus - we are glad they are here.

Clubs and Organizations

Anoka Technical College strives to provide students opportunities to engage with their fellow students, faculty, and staff through student activity, student organization, and other student life programming.

Current Student Life opportunities at Anoka Technical College include:

- **Horticulture Club** provides students opportunities for leadership development and service.
- **Multicultural Club** provides students with opportunities to enhance the appreciation and understanding of the diversity within the college and the community.
- **Occupational Therapy Club (TECOTA)** offers students the opportunity to develop leadership skills and engage more in their field.
- **Peer Tutors** are students trained to tutor their peers in a variety of academic subjects.
- **Student Activities** provide a regular schedule of on and off campus gatherings, events, and entertainment opportunities.
- **Student Ambassadors** are students working together to promote the college and welcome new students to Anoka Technical College.
- **Welding Club (Skills-USA)** provides opportunities for students to complete in their field.

Career Planning Resources

College Central is a job searching website for Anoka Technical College students and alumni. College Central offers a tools such as a resume builder, and resources around job search and interviewing. www.collegecentral.com/anokatech/

Student Policies

Student Rights and Responsibilities

Student Code of Conduct

As an institution dedicated to teaching and learning, Anoka Technical College has a vested interest in maintaining an environment in which all students are free to pursue their academic interests and responsibilities. Conduct by a single student or group of students that unreasonably restricts such freedom and interferes with the college mission of promoting student learning is subject to regulation and/or sanction by the college. The creation of such an environment is premised on the assumption that students have both rights and responsibilities. Therefore, a major function of the college is to guarantee student rights and at the same time to expect student responsibility.

The Anoka Technical College Student Code of Conduct serves two purposes: to serve as a guide for student behavior and outline the procedure to be followed, both by students and college officials, should violations of the Code occur. It is expected that all students will read and abide by the full Student Code of Conduct available in the Student Handbook.

[Policy 3.12 Student Complaint Process](#)

Student Data Practices

MnSCU complies with the Family Educational Rights and Privacy Act (FERPA), the Minnesota Government Data Practices Act (MGDPA),



and other applicable laws and regulations concerning the handling of educational data. The full Student Data Practices policy and procedures can be found on the college website.

Use of Email for Official Communication

Anoka Technical College uses college-assigned email addresses as the official means of communications with all students. All new students will receive their my.anokatech.edu e-mail account during New Student Orientation. Students are responsible for information sent to them via their email account. My.anokatech.edu, a free web-based Microsoft Outlook Live e-mail account, is Anoka Technical College's official means of communicating with students.

Academic Policies

Grades

Student academic performance shall be evaluated solely on the basis of academic standards, including any requirements that are noted in the catalog, course syllabus, or student handbook. Students may review their corrected examinations or other required assignments used by the faculty in evaluating the student's academic performance.

Explanation of Grades

Grades of A, B, C, D, F, P, S and U are used in evaluating performance in the classes or major and are given to a student each term.

A - denotes excellent achievement

B - denotes above average achievement

C - denotes average achievement

D - denotes below average achievement

F - denotes unsatisfactory achievement

P - denotes passing achievement

S - denotes satisfactory achievement

U - denotes unsatisfactory achievement

I - denotes incomplete work because of unavoidable circumstances. An incomplete must be made up under a schedule arranged with the instructor within one semester.

IP - denotes a course for which no grade has been assigned.

W - denotes withdrawal from a course during the withdrawal period.

FN - denotes that a student never attended the course but never officially dropped the course.

FW - denotes that a student began attending the course, never completed it, and never officially withdrew from the course.

AU - denotes that a student has registered for and attended a class, but did not earn credit.

Z - denotes course that is active.

Grade Average Point (GPA)

The following system will be used to determine a student's grade-point average:

- A - four grade-points per credit

- B - three grade-points per credit
- C - two grade-points per credit
- D - one grade-point per credit
- F, FN, FW - zero grade-points per credit
- I, IP, P, S, U, W, Z - not considered in determining grade-point average

A student's grade-point average is determined by adding all grade-points earned dividing by the sum of all credits attempted in courses for which grade-points are earned. GPA is calculated on a semester and a cumulative basis. The GPA calculation does not include test-out grades, transfer grades, advanced placement, or credit for prior learning.

Incompletes

If a student is passing and misses an examination or fails to turn in a major assignment or project as determined by the instructor, a grade of Incomplete may be given. A student with an incomplete must arrange a schedule of completion with the instructor. Incompletes not successfully concluded by the end of the following term will be recorded as an "F" grade. However, incompletes given at the end of spring semester will be changed to an "F" at the end of fall semester if not properly made up, since summer session is excluded.

Prerequisite Courses

If the completion of a course in which the student earns an incomplete is a prerequisite for another course, registration for the subsequent course is at the discretion of the instructor of the second course. This policy does not apply to developmental prerequisites.

Grades – Repeating Courses

Students may repeat courses for purposes of achieving a higher grade or to review material. Students must register and pay tuition for repeated courses. Test-outs and independent studies are not acceptable means of making up a failed course. Both courses and grades earned will be reflected on the student transcript. The course that was previously taken is not counted in the GPA calculation or earned credits but will count as an attempted credits for calculation of satisfactory academic progress.

A student will be allowed to repeat a course one time. Failure to successfully complete a course (i.e., receiving an "F" "FN" "FW" "U" or a "W") when repeating it will result in not being allowed to re-register for that course for six months. Appeals can be directed to the Dean of Academic Affairs.

Failing to successfully complete a repeated course may exclude the student from certain program majors.

[Policy 3.8 Grading](#)

[Policy 3.9 Academic Grade Appeal](#)

Satisfactory Academic Progress (SAP)

Anoka Technical College and the Minnesota State Colleges and Universities Board Policy 2.9.1, in compliance with Federal and state regulations require that all students maintain satisfactory academic progress toward the completion of a degree, diploma, or certificate



in order to be eligible to receive financial aid (including Federal and State work study, loans, grants, and some scholarships) and remain in good academic standing and continue their enrollment. The purpose of this requirement is to encourage all students to progress steadily at a reasonable rate toward graduation.

The full SAP policy and procedure can be found on the college website.

[Policy 2.7 Satisfactory Academic Progress](#)

Academic Petition

The Academic Petition can be used to request a waiver to an academic policy of the college such as repeat course or Accuplacer policy, program requirements or course prerequisites. The form can be found on the college website.

Academic Due Process

Academic Due Process is used when a student believes s/he has a valid complaint regarding the content or conduct of a course or grading. The form to use to begin this process can be found on the college website.

Academic Forgiveness

The Academic Forgiveness Petition can be used when a student is seeking forgiveness of previous unsatisfactory academic coursework at Anoka Technical College. The student must meet with conditions as listed on the form and in the student handbook. The form can be found on the college website.

[Policy 2.11 Academic Forgiveness](#)

[Policy 2.8 Exempt Maximum Number of Credits](#)

Graduation

Graduation Procedure

1. Each student must apply to graduate from Anoka Technical College. The graduation application is available in the Office of Records and Registration and online.
2. Each student should meet with his/her academic advisor to ensure graduation requirements are met. Both the academic advisor and student must sign the graduation application.
3. The completed graduation application, along with cap and gown information and the graduation fee should be submitted to the Bookstore by the posted deadline of the student's final semester.
4. The Office of Records and Registration will review the graduation application and transcript to ensure all graduation requirements have been met or are on track to be completed. If the application for graduation is not approved, an appeal may be filed with the Dean of Student Affairs. All students will receive an email confirming their graduation application status.
5. Students must maintain a cumulative 2.0 G.P.A. to be eligible for a certificate, diploma, or AAS degree. Note: Program majors may require a minimum of a "C" in technical courses only or in all courses required by the program plan.

6. Deadlines for submitting a graduation application and ordering a cap and gown will be determined and posted each semester. Most often for fall graduates who do not participate in priority registration, the application, cap and gown form, and fee deadline is October 1st. For spring graduates, who do not participate in priority registration, the application, cap and gown form and fee deadline is March 1st. If the deadline is not met, the student will be unable to order a cap and gown, thus unable to participate in commencement.
7. Graduates who achieve an overall GPA of 3.5-4.0 by the last semester completed prior to graduation will be identified with a special notation by their name. The GPA calculations do not include final semester grades.
8. Veterans and service members will be acknowledged for their military service in the graduation program with a special notation by their name. They will also wear a red, white, and blue cord signifying their service.
9. Certificates, degrees, diplomas, and transcripts will be mailed approximately six weeks after graduation

[Policy 2.4 Graduation](#)

Graduation Requirements

1. A student will earn a certificate, diploma, or AAS degree upon satisfactorily completing all requirements for graduation and complying with all applicable policies of the college, including all financial obligations to the College are met.
2. Students will graduate at the end of the term in which they complete all course requirements. However, a student may be allowed to participate in commencement if he/she desires to walk with his/her cohort but have outstanding graduation requirements of 6 credits or less and the courses are offered the following semester. The student will not receive an award until they successfully complete outstanding program requirements. If more than 6 credits are to be completed, the student will be allowed to participate in commencement after all program requirements are completed the following term.
3. When the student completes all requirements for graduation and is awarded a certificate/diploma/degree, he/she will receive an official transcript at no charge. Additional copies of official transcripts may be obtained for a fee by submitting a written request to the Office of Records and Registration. Transcripts cannot be released until all financial obligations to ATC are met.
4. Official transcripts cannot be released until all financial obligations are met.
5. To receive a degree from Anoka Technical College, students must earn one third of their credits through enrollment in Anoka Technical College courses.
6. Students who do not meet graduation requirements will be notified by letter. Students must reapply for graduation after meeting the requirements.

Partial Completion

It is the policy of the college that students who do not complete the required number of credits for a certificate, diploma or AAS degree



receive an unofficial transcript. The transcript shall include the completed credits for completed courses.

Important Note

Program plans are subject to change. Please contact your program advisor for the most current program information.



Award Types

Associate in Applied Science (AAS)

The AAS degree is intended for those students who plan to use the knowledge and skills gained through their degree for immediate employment. It is not designed to transfer to a four-year institution unless the college has an articulation agreement on file.

- Accounting
- Administrative Specialist
- Architectural Technology
- Automotive Technician
- Biomedical Equipment Technician
- Business Data Technician
- CNC Design & Manufacturing Technology
- Community Social Services
- Electronic Engineering Technology
- Golf Course Grounds Management
- Health Information Technology
- Information Technology Management
 - Database Design & Development
 - Convergence Technology
 - Game Programming
 - Mobile Development
 - Network Analyst
 - Software Development
 - Web Design & Development
- Judicial Reporting
- Landscape Technology
- Legal Administrative Assistant
- Mechanical Drafting and Design- CAD Drafter
- Medical Administrative Specialist
- Medical Assistant
- Occupational Therapy Assistant
- Supervisory Management
- Surgical Technology
- Welding Technology

Diploma

Specialized programs of study offer diplomas. Such programs are designed for students who wish to gain additional knowledge and skills for mid-level employment positions in the specific field.

- Administrative Specialist
- Advanced CNC Manufacturing Technology
- Architectural and Construction Technician
- Automotive Technician
- CAD Drafter
- CNC Machinist
- Construction Electrician
- Convergence Technologies
- Database Design & Development
- Electronic Technician
- Game Programming
- Golf Course Grounds Management
- Information Systems Analyst
- Landscape Technology
- Legal Administrative Assistant
- Machinist
- Medical Coding Specialist

- Medical Receptionist
- Mobile Development
- Network Analyst
- Practical Nursing
- Software Development
- Web Design & Development
- Welding Technology

Certificate

Certificate programs are designed for students who wish to develop vocational skills for entry-level employment in specific career areas.

- Accounting Tax Preparer
- Administrative Specialist
- Basic and Advanced CAD Drafting
- Basic Welding
- Bookkeeper
- Broadcast Captioning/CART
- Construction Estimating
- Emergency Medical Services
- Fabricator
- Grounds Maintenance Technician
- Health Technology
- Human Resource Development
- Landscape Technician
- Logistics Specialist
- Medical Scribe Specialist
- Multi-Axis Machining
- Nursing Assistant/Home Health Aide
- Payroll Accounting
- Pipe Welder
- Quality Supervision
- Scoping/Proofreading
- Sterile Processing
- Supervisory Leadership

Divisions and Programs

General Education

This department offers select courses for the programs which prepare individuals for employment in their programs. Courses are currently offered in Biology, English, Mathematics, Philosophy, Psychology, Sociology and Speech. Courses are offered every semester and summers. Many offer online or partially online sections in addition to classroom instruction.

Some general education courses are approved as part of the Minnesota Transfer Curriculum (MnTC) and are intended to be accepted at other MnSCU institutions.

Note: Anoka Technical College is one of two MnSCU institutions that do not certify completion of the MnTC. Anoka Technical College recognize and indicate courses and their goal area(s) in the MnTC; however, since we do not certify MnTC completion, no goals will show as completed (OK) on students eMnTC audits.

Career Clusters

- Accounting, Management and Administration
- Engineering, Manufacturing and Technology
- Golf Course Management/Landscape Technology



- Human Services
- Information Technology Management
- Transportation, Distribution and Logistics
- Health Science Technology

Special Note for students interested in Health Careers:

Minnesota Law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility licensed by the Minnesota Department of Health; have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate at a clinical site.

The student has the right to request reconsideration of the disqualification. For consideration to continue in the program the student must request reconsideration and provide a copy of such request. The student is responsible for requesting the Commissioner to reconsider the disqualification.

The college will withdraw any student who is disqualified by the Minnesota Department of Health.

MN Transfer Curriculum (MnTC)

Course List

The MN Transfer Curriculum (MnTC) general education credits from Anoka Technical College transfer to any Minnesota State College or University or institution of your choice.

Core Goal Areas

- Goal 1: Communication
- Goal 2: Critical Thinking
- Goal 3: Natural Sciences
- Goal 4: Mathematics/Logical Reasoning
- Goal 5: History and the Social and Behavioral Sciences
- Goal 6: The Humanities and Fine Arts
- Goal 7: Human Diversity
- Goal 8: Global Perspective
- Goal 9: Ethical and Civic Responsibility
- Goal 10: People and the Environment

Goal 1

COMM 1050	Strengths & Wellness	2 cr
COMM 1055	Strengths & Wellness	3 cr
ENGL 1105	Composition I	4 cr
ENGL 1110	Special Topics: Research Project	1 cr
ENGL 2105	Business & Technical Writing	4 cr
SPCH 1120	Public Speaking	3 cr
SPCH 1200	Interpersonal Communication	3 cr
SPCH 1500	Intercultural Communication	3 cr

Goal 2:

BIOL 1106	Introduction to Biology	4 cr
BIOL 2100	Anatomy & Physiology I	4 cr

BIOL 2106	Microbiology	4 cr
BIOL 2200	Anatomy & Physiology II	4 cr
COMM 1050	Strengths & Wellness	2 cr
COMM 1055	Strengths & Wellness	3 cr
ENGL 1105	Composition I	4 cr
ENGL 1150	Multicultural Literature	4 cr
ENGL 2105	Business & Technical Writing	4 cr
INTS 1000	Critical Thinking Applications for College	3 cr

Goal 3

BIOL 1106	Introduction to Biology	4 cr
BIOL 2100	Anatomy & Physiology I	4 cr
BIOL 2200	Anatomy & Physiology II	4 cr
BIOL 2106	Microbiology	4 cr
NSCI 1020	Plant Science	3 cr
NSCI 1030	Introduction to Environmental Science	3 cr

Goal 4

MATH 1500	Mathematical Ideas	3 cr
MATH 1550	Introduction to Statistics	4 cr
MATH 1600	College Algebra	4 cr
MATH 1650	College Trigonometry	3 cr
MATH 1700	Pre-Calculus	5 cr

Goal 5

PSYC 1405	Lifespan Development	4 cr
PSYC 1505	General Psychology	4 cr
PSYC 1605	Abnormal Psychology	4 cr
SOSC 1010	Introduction to Sociology	3 cr
SOSC 2000	Sociology at Work	4 cr

Goal 6

ENGL 1150	Multicultural Literature	4 cr
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Goal 7

ASL 1000	ASL Deaf Studies/Culture	3 cr
ENGL 1150	Multicultural Literature	4 cr
SOSC 1010	Introduction of Sociology	3 cr
SPCH 1200	Interpersonal Communication	3 cr
SPCH 1500	Intercultural Communication	3 cr

Goal 8

ASL 1100	American Sign Language I	3 cr
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Goal 9

PHIL 1200	Technology, Ethics and Society	3 cr
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Goal 10:

NSCI 1020	Plant Science	3 cr
NSCI 1030	Intro to Environmental Science	3 cr





**Accounting, Management
& Administration**

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Accounting is a 60-credit program that prepares students for careers in accounting.

The program allows students to select a specific accounting pathway by completing the Bookkeeper certificate, Payroll Accounting certificate, or Tax Preparer certificate. Students select the Accounting AAS degree for a comprehensive curriculum that includes courses from each of the certificate pathways.

Certification/Accreditation

The Accounting program prepares students for nationally recognized certifications including:

- Fundamental Payroll Certification (FPC) conferred by the American Payroll Association (APA).
- Certified QuickBooks User Exam conferred by Intuit.
- Certified Bookkeeper conferred by the American Institute of Professional Bookkeepers (AIPB).
- Registered Tax Return Preparer certification conferred by the Internal Revenue Service (IRS).
- Accredited Business Accountant (ABA) certification conferred by the Accreditation Council for Accountancy and Taxation (ACAT).
- Registered Accounting Practitioner (RAP) as a Minnesota state license conferred by the Minnesota Board of Accountancy.

Anoka Technical College Accounting programs prepare students for up to five nationally recognized certifications (see Credits for course listing):

^[1] See Prerequisites.

^[2] ACCT1030 and ACCT1170: Fundamental Payroll Certification (FPC) exam; certification by the American Payroll Association (APA). The exam at a Pearson VUE testing center.

^[3] ACCT1200: Certified Bookkeeper exam; certification by American Institute of Professional Bookkeepers (AIPB). For Certified Bookkeeper designation, candidates must pass four-part certification, sign code of ethics, and submit evidence of two years of full-time bookkeeping experience. ACCT1200 incorporates two parts of exam as open-book tests. The other two parts taken at a Prometric testing center. The exam may be completed prior to fulfilling work experience.

^[4] ACCT1210: Registered Tax Return Preparer Competency Test; certification by the Internal Revenue Service (IRS). The test taken at a Prometric testing center. For Registered Tax Return Preparer, candidates must obtain Preparer Tax Identification Number (PTIN), take and pass Registered Tax Return Preparer Competency Test, pass tax compliance suitability check (initiated by IRS), and receive RTRP certificate.

^[5] ACCT1225: Comprehensive Exam for Accreditation in Accountancy to become an Accredited Business Accountant (ABA); certification by the Accreditation Council for Accountancy and Taxation (ACAT). To become an Accredited Business Accountant, candidates must pass Comprehensive Examination for Accreditation in Accountancy and have three years of related work experience, up to two of which may be satisfied through college credit. The exam may be completed prior to fulfilling work experience. The exam is administered at Anoka Technical College as the final exam in ACCT1225.

^[6] ACCT1160: Certified QuickBooks User Exam; certification is conferred by Intuit. The exam taken at Certiport Testing Center. Students may also qualify for a Registered Accounting Practitioner license, which is a Minnesota state license. To become certified or licensed, students must satisfy all requirements of each applicable national or state credentialing agency.

Prerequisites

^[1] The prerequisite to Introduction to Computers (COMP 1000) is Basic Computer Keyboarding (COMP 0100) or successful completion of the Basic Computer Keyboarding test-out exam.

^[2-6] See Certification/Accreditation.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Opportunities

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Accountants must be knowledgeable in the areas of financial accounting, managerial accounting, cost accounting, payroll, taxes, and computerized accounting applications. Their job responsibilities might include the accounting functions of accounts receivable, accounts payable, payroll, taxes, general ledger accounting, cash management, inventory management, budget preparation, or financial reporting. Additional skills are required to develop spreadsheets, use multiple accounting software packages, and communicate with customers, vendors, clients, and colleagues.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).



Accounting

Associate in Applied Science (AAS) Degree

Technical Education: 45 credits

Core35 credits

- ACCT 1015 Principles of Accounting I 4
- ACCT 1025 Principles of Accounting II 4
- ACCT 1030 Payroll Accounting ^[2] 2
- ACCT 1035 Income Tax I 3
- ACCT 1045 Tax Lab 1
- ACCT 1100 Cost Accounting 3
- ACCT 1110 Income Tax II 3
- ACCT 1120 Intermediate Accounting I 3
- ACCT 1130 Intermediate Accounting II 3
- ADSC 1006 Business Law 4
- ADSC 1171 Microsoft Excel 2
- COMP 1000 Introduction to Computers ^[1] 3

Electives10 credits

Student is required to take one of the following preparatory courses:

- ACCT 1200 Bookkeeper Certification Preparatory ^[3] 3
- ACCT 1210 Registered Tax Return Preparer Preparatory ^[4] 3
- ACCT 1225 Accreditation in Accountancy Preparatory ^[5] 3

The remaining seven elective credits are required from the following list:

- ACCT 1055 Computerized Accounting: Peachtree 2
- ACCT 1065 Computerized Accounting: QuickBooks 2
- ACCT 1075 Computerized Accounting: Microsoft Dynamics GP 2
- ACCT 1085 Construction Accounting 2
- ACCT 1160 Advanced QuickBooks ^[6] 2
- ACCT 1170 Advanced Payroll Accounting ^[2] 2
- ADSC 1181 Microsoft Access 2

^[1-6] See Certification/Accreditation and Prerequisites.

Also see: Bookkeeper certificate, Payroll Accounting certificate and Tax Preparer certificate.

General Education/MnTC Requirements: 15 credits

Fifteen credits of Minnesota Transfer Curriculum (MnTC) courses are required. Student is required to take:

- ENGL 1105 Composition I 4
- OR
- ENGL 2105 Business and Technical Writing 4
- MATH course selected from MnTC 3 or 4
- SPCH 1200 Interpersonal Communications 3
- General Education/MnTC Courses 4 or 5

The General Education five credits must be taken from the Minnesota Transfer Curriculum (MnTC). Refer to the Anoka Technical College Web site for a list of the MnTC and their goal areas: AnokaTech.edu/current_students/transfer/

Start Dates

- Fall Semester August
- Spring Semester January

Faculty Contact

Erika Limbacher 763-576-4037

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

1st YEAR	ACCT 1015 4	ACCT 1025 4
	ACCT 1030 2	ACCT 1045 1
2nd YEAR	ACCT 1035 3	ADSC 1006 4
	COMP 1000 3	ADSC 1171 2
	General Ed/MnTC 3-4	ACCT Elective 2
	TOTAL 15-16	General Ed/MnTC 3-4
	Fall Semester	Spring Semester
	ACCT 1100 3	ACCT 1130 3
	ACCT 1110 3	ACCT Elective 2-3
ACCT 1120 3	ACCT Elective 2-3	
ACCT Elective 2-3	ACCT Elective* 0-2	
General Ed/MnTC 3-4	General Ed/MnTC 3-4	
TOTAL 14-16	General Ed/MnTC* 0-2	
	TOTAL 11-15	

*NOTE: Depending on elective course selection, students may need three ACCT elective courses and two MnTC/general education elective courses in their final semester. To graduate, students must complete 15 credits of MnTC/general education and 10 credits of Accounting electives.

Although the MnTC/general education courses are listed in the sequence above, these courses may be taken any semester and in any order.



Program Information

The Anoka Technical College Bookkeeper certificate is a 27-credit program that prepares students for careers in accounting. The Bookkeeper certificate along with the Payroll Accounting certificate and the Tax Preparer certificate allow students to select a specific accounting pathway to enter the workforce quickly with strong accounting skills or to complete the entire Associate in Applied Science (AAS) degree in Accounting provides a comprehensive curriculum that includes courses from each of the certificate pathways. Students who successfully pass the certification exams demonstrate to employers that they are prepared to handle their job responsibilities.

Certification/Accreditation

The Bookkeeper certificate prepares students for nationally recognized certifications:

- Fundamental Payroll Certification (FPC) conferred by the American Payroll Association (APA)
- Certified QuickBooks User conferred by Intuit
- Certified Bookkeeper conferred by the American Institute of Professional Bookkeepers (AIPB)

To become certified or licensed, students must satisfy all requirements of each applicable national or state credentialing agency.

Anoka Technical College Accounting programs prepare students for up to five nationally recognized certifications (see Credits):

^[1] See Prerequisites.

^[2] ACCT1030 and ACCT1170: Fundamental Payroll Certification (FPC) exam; certification by the American Payroll Association (APA). The exam at a Pearson VUE testing center.

^[3] ACCT1200: Certified Bookkeeper exam; certification by American Institute of Professional Bookkeepers (AIPB). For Certified Bookkeeper designation, candidates must pass four-part certification, sign code of ethics, and submit evidence of two years of full-time bookkeeping experience. ACCT1200 incorporates two parts of exam as open-book tests. The other two parts taken at a Prometric testing center. The exam may be completed prior to fulfilling work experience.

^[4] ACCT1160: Certified QuickBooks User Exam; certification is conferred by Intuit. The exam taken at Certiport Testing Center.

Students may also qualify for a Registered Accounting Practitioner license, which is a Minnesota state license. To become certified or licensed, students must satisfy all requirements of each applicable national or state credentialing agency.

Prerequisites

^[1] The prerequisite to this course is COMP0100 Basic Computer Keyboarding or successful completion of the Basic Computer Keyboarding test-out exam.

^[2-4] See Certification/Accreditation.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Opportunities

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Accountants must be knowledgeable in the areas of financial accounting, managerial accounting, cost accounting, payroll, taxes, and computerized accounting applications. Their job responsibilities might include the accounting functions of accounts receivable, accounts payable, payroll, taxes, general ledger accounting, cash management, inventory management, budget preparation, or financial reporting. Additional skills are required to develop spreadsheets, use multiple accounting software packages, and communicate with customers, vendors, clients, and colleagues.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this [link for a Gainful Employment](#) report.

Technical Education: 27 credits

<input type="checkbox"/>	ACCT1025	Principles of Accounting II	.....	4
<input type="checkbox"/>	ACCT1030	Payroll Accounting ^[2]	.....	2
<input type="checkbox"/>	ACCT1035	Income Tax I	.....	3
<input type="checkbox"/>	ACCT1200	Bookkeeper Certification Preparatory Course ^[3]	.....	3
<input type="checkbox"/>	ADSC1171	Microsoft Excel	.....	2
<input type="checkbox"/>	COMP1000	Introduction to Computers ^[1]	.....	3
Electives	.....	.....	.....	6
<i>Six credits of electives are required from the following list:</i>				
<input type="checkbox"/>	ACCT1045	Tax Lab	.....	1
<input type="checkbox"/>	ACCT1055	Computerized Accounting: Peachtree	.....	2
<input type="checkbox"/>	ACCT1065	Computerized Accounting: QuickBooks	.....	2
<input type="checkbox"/>	ACCT1075	Computerized Accounting: Microsoft Dynamics GP	.....	2
<input type="checkbox"/>	ACCT1085	Construction Accounting	.....	2
<input type="checkbox"/>	ACCT1110	Income Tax II	.....	3
<input type="checkbox"/>	ACCT1160	Advanced QuickBooks ^[4]	.....	2
<input type="checkbox"/>	ACCT1170	Advanced Payroll Accounting ^[2]	.....	2
<input type="checkbox"/>	ADSC1181	Microsoft Access	.....	2

^[1-4] See Certification/Accreditation and Prerequisites.



(continued)

2016-2017

Bookkeeper

Certificate

If a student completes more than one certificate in the Accounting program, each additional certificate must include at least four credits of electives that are not counted in any other certificate.

Also see: Accounting AAS degree, Payroll Accounting certificate and Tax Preparer certificate

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Erika Limbacher](mailto:Erika.Limbacher@anokatech.edu) 763-576-4037

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ACCT 1015 4	ACCT 1025 4
	ACCT 1030 2	ACCT 1171 2
	ACCT 1035 3	ACCT Elective 2
	COMP 1000 3	ACCT Elective 1-3
	TOTAL 12	ACCT Elective 1-3
	TOTAL 12	
2nd YEAR	Fall Semester	
	ACCT 1200 3	
	TOTAL 3	



Program Information

The Anoka Technical College Payroll Accounting certificate is a 19-credit program that prepares students for careers in accounting.

The Payroll certificate along with the Bookkeeper certificate and the Tax Preparer certificate allow students to select a specific accounting pathway to enter the workforce quickly with strong accounting skills or to complete the entire Associate in Applied Science (AAS) degree in Accounting provides a comprehensive curriculum that includes courses from each of the certificate pathways.

Students who successfully pass the certification exams demonstrate to employers that they are prepared to handle their job responsibilities.

Certification/Accreditation

The Payroll Accounting certificate prepares students for nationally recognized certifications including:

- Fundamental Payroll Certification (FPC) conferred by the American Payroll Association (APA).
- Certified QuickBooks User conferred by Intuit.

Anoka Technical College Accounting programs prepare students for up to five nationally recognized certifications (see Credits):

^[1] See Prerequisites.

^[2] ACCT1030 and ACCT1170: Fundamental Payroll Certification (FPC) exam; certification by the American Payroll Association (APA). The exam at a Pearson VUE testing center.

^[3] ACCT1160: Certified QuickBooks User Exam; certification is conferred by Intuit. The exam taken at Certipoint Testing Center.

Students may also qualify for a Registered Accounting Practitioner license, which is a Minnesota state license. To become certified or licensed, students must satisfy all requirements of each applicable national or state credentialing agency.

Prerequisites

^[1] The prerequisite to this course is COMP0100 Basic Computer Keyboarding or successful completion of the Basic Computer Keyboarding test-out exam.

^[2-3] See Certification/Accreditation.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Accountants must be knowledgeable in the areas of financial accounting, managerial accounting, cost accounting, payroll, taxes, and computerized accounting applications. Their job responsibilities might include the accounting functions of accounts receivable, accounts payable, payroll, taxes, general ledger accounting, cash management, inventory management, budget preparation, or financial reporting. Additional skills are required to develop spreadsheets, use multiple accounting software packages, and communicate with customers, vendors, clients, and colleagues.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link to see the [Gainful Employment Report](#).

Technical Education - 19 Credits

<input type="checkbox"/>	COMP1000	Introduction to Computers ^[1]	3
<input type="checkbox"/>	ACCT1015	Principles of Accounting I ^[2]	4
<input type="checkbox"/>	ACCT1030	Payroll Accounting	2
<input type="checkbox"/>	ACCT1170	Advanced Payroll Accounting ^[2]	2
<input type="checkbox"/>	ADSC1171	Microsoft Excel	2
	Electives		6
<i>Six credits of electives are required from the following list:</i>			
<input type="checkbox"/>	ACCT1035	Income Tax I	3
<input type="checkbox"/>	ACCT1045	Tax Lab	1
<input type="checkbox"/>	ACCT1055	Computerized Accounting: Peachtree	2
<input type="checkbox"/>	ACCT1065	Computerized Accounting: QuickBooks	2
<input type="checkbox"/>	ACCT1075	Computerized Accounting: Microsoft Dynamics GP	2
<input type="checkbox"/>	ACCT1085	Construction Accounting	2
<input type="checkbox"/>	ACCT1110	Income Tax II	3
<input type="checkbox"/>	ACCT1160	Advanced QuickBooks ^[3]	2
<input type="checkbox"/>	ADSC1181	Microsoft Access	2
<input type="checkbox"/>	SMGT1612	Human Resource Management	3
<input type="checkbox"/>	SMGT1616	Employment Law	2

^[1-3] See Certification/Accreditation and Prerequisites.

If a student completes more than one certificate in the Accounting program, each additional certificate must include at least four credits of electives that are not counted in any other certificate. Also see: Accounting AAS degree, Bookkeeper and Tax Preparer certificate



(continued)

2016-2017

Payroll Accounting

Certificate

Start Dates

Fall Semester August
 Spring Semester January

Faculty Contact

[Erika Limbacher](mailto:Erika.Limbacher@anokatech.edu) 763-576-4037

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ACCT 1015 4	[2] ACCT 1170 2
	[2] ACCT 1030 2	ADSC 1171 2
	[1] COMP 1000 3	ACCT Elective 2-3
	ACCT Elective 2-3	ACCT Elective 0-2
	TOTAL 11-12	TOTAL 7-8



Program Information

The Anoka Technical College Tax Preparer certificate is a 25-credit program that prepares students for careers in accounting.

The Tax Preparer certificate along with the Bookkeeper certificate and the Payroll certificate allow students to select a specific accounting pathway to enter the workforce quickly with strong accounting skills or to complete the entire Associate in Applied Science (AAS) degree in Accounting provides a comprehensive curriculum that includes courses from each of the certificate pathways.

Students who successfully pass the certification exams demonstrate to employers that they are prepared to handle their job responsibilities.

Certification/Accreditation

Anoka Technical College Accounting programs prepare students for up to five nationally recognized certifications (see Credits):

^[1] See Prerequisites.

^[2] ACCT1030 and ACCT1170: Fundamental Payroll Certification (FPC) exam; certification by the American Payroll Association (APA). The exam at a Pearson VUE testing center.

^[3] ACCT1210: Registered Tax Return Preparer Competency Test; certification by the Internal Revenue Service (IRS). The test taken at a Prometric testing center. For Registered Tax Return Preparer, candidates must obtain Preparer Tax Identification Number (PTIN), take and pass Registered Tax Return Preparer Competency Test, pass tax compliance suitability check (initiated by IRS), and receive RTRP certificate.

^[4] ACCT1160: Certified QuickBooks User Exam; certification is conferred by Intuit. The exam taken at Certiport Testing Center.

Students may also qualify for a Registered Accounting Practitioner license, which is a Minnesota state license. To become certified or licensed, students must satisfy all requirements of each applicable national or state credentialing agency.

Prerequisites

^[1] The prerequisite to this course is COMP0100 Basic Computer Keyboarding or successful completion of the Basic Computer Keyboarding test-out exam.

^[2-4] See Certification/Accreditation

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Accountants must be knowledgeable in the areas of financial accounting, managerial accounting, cost accounting, payroll, taxes, and computerized accounting applications. Their job responsibilities might include the accounting functions of accounts receivable, accounts payable, payroll, taxes, general ledger accounting, cash management, inventory management, budget preparation, or financial reporting. Additional skills are required to develop spreadsheets, use multiple accounting software packages, and communicate with customers, vendors, clients, and colleagues.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link to see the [Gainful Employment Report](#).

Technical Credits: 25

Core	19
<input type="checkbox"/> ACCT 1015 Principles of Accounting I	4
<input type="checkbox"/> ACCT 1035 Income Tax I	3
<input type="checkbox"/> ACCT 1045 Tax Lab	1
<input type="checkbox"/> ACCT 1110 Income Tax II	3
<input type="checkbox"/> ACCT 1210 Registered Tax Return Preparer Preparatory Course ^[3]	3
<input type="checkbox"/> ADSC 1171 Microsoft Excel	2
<input type="checkbox"/> COMP 1000 Introduction to Computers ^[1]	3
Electives	6
<i>Six credits of electives are required from the following list:</i>	
<input type="checkbox"/> ACCT 1030 Payroll Accounting ^[2]	2
<input type="checkbox"/> ACCT 1055 Computerized Accounting: Peachtree	2
<input type="checkbox"/> ACCT 1065 Computerized Accounting: QuickBooks	2
<input type="checkbox"/> ACCT 1075 Computerized Accounting: Microsoft Dynamics GP	2
<input type="checkbox"/> ACCT 1085 Construction Accounting	2
<input type="checkbox"/> ACCT 1160 Advanced QuickBooks ^[4]	2
<input type="checkbox"/> ACCT 1170 Advanced Payroll Accounting ^[2]	2

^[1-4] See Certification/Accreditation and Prerequisites.



(continued)

2016-2017

Tax Preparer

Certificate

If a student completes more than one certificate in the Accounting program, each additional certificate must include at least four credits of electives that are not counted in any other certificate.

Also see: Accounting AAS degree, Bookkeeper certificate and Payroll Accounting certificate

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Erika Limbacher](mailto:Erika.Limbacher@anokatech.edu) 763-576-4037

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ACCT 1015 4	ACCT1045 1
	ACCT 1035 3	ACCT 1110 3
	[1] COMP 1000 2	[3]ACCT 1210 3
	ACCT Elective 3	ACCT Elective 2
	TOTAL 12	ACCT Elective 2
		ADSC 1171 2
	TOTAL 13	

[1 and 3] See Certification/Accreditation and Prerequisites.

In their final semester, depending on elective course selection, students may need two ACCT elective courses. To graduate, students must complete six credits of Accounting electives.

Although the general education courses are listed in the sequence above, the courses may be taken any semester and in any order.



Administrative Specialist

Associate in Applied Science (AAS) Degree

Technical Requirements.....	45
General Education/MnTC	15
Total Credits	60

Program Information

The Anoka Technical College Administrative Specialist Associate in Applied Science (AAS) degree is a 60-credit program that prepares students with the broad range of technical and communications skills needed for success in today’s office work environment. Students will gain competence in word processing, spreadsheet, database, and presentation software. Keyboarding speed and accuracy is developed while grammar, punctuation and writing skills are polished. Students study bookkeeping theory and learn general ledger software in order to prepare them for general bookkeeping or accounts receivable or accounts payable positions. Students are well prepared to fulfill any office support position and may advance to office management.

Prerequisites

See Credits:

- [A] The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.
- [B] The prerequisite to ADSC1021 Keyboarding II is ADSC1010 Keyboarding I.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

A documented 5-minute timed keyboarding skill of 45 net words per minute is required for graduation from this program.

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Administrative assistants perform a full range of office tasks. They use a variety of software packages (word processing, spreadsheets, databases, graphics, desktop publishing, multi-media, etc.) to create, record, edit, and store correspondence, reports, tables and forms from many sources.

They may also read and route incoming mail, file and retrieve correspondence and other records manually or electronically, transcribe business correspondence from machine dictation, answer telephones and give information to callers or route calls to the appropriate individual, operate copying and faxing equipment, perform bookkeeping duties, transactions and make travel arrangements.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-employment-and-economic-development) (http://mn.gov/deed/job-

seekers/job-outlook/index.jsp).

Technical Credits: 45 Credits

<input type="checkbox"/>	ADSC 1003	Introduction to Keyboarding & Speedbuilding ...	2
<input type="checkbox"/>	ADSC 1010	Keyboarding I ^[A]	3
<input type="checkbox"/>	ADSC 1021	Keyboarding II ^[B]	3
<input type="checkbox"/>	ADSC 1031	Business English Skills.....	3
<input type="checkbox"/>	ADSC 1045	Administrative Office Procedures	4
<input type="checkbox"/>	ADSC 1054	Office Bookkeeping.....	4
<input type="checkbox"/>	ADSC 1142	Integrated Software Applications	4
<input type="checkbox"/>	ADSC 1162	Microsoft PowerPoint	2
<input type="checkbox"/>	ADSC 1171	Microsoft Excel	2
<input type="checkbox"/>	ADSC 1181	Microsoft Access	2
<input type="checkbox"/>	ADSC 1196	Microsoft Word.....	4
<input type="checkbox"/>	ADSC 1206	Written Business Communications.....	4
<input type="checkbox"/>	ADSC 1451	Technology Tools for the Workplace	3
<input type="checkbox"/>	SMGT 2602	Project Management	3

Electives 2
Choose any two (2) credit Supervisory Management course.

General Education/MnTC Requirements: 15 Credits

- INTS 1000 Critical Thinking Application for College..... 3
- Choose 12 credits from MnTC from THREE different MnTC goal areas

Also see: Administrative Specialist diploma and Administrative Specialist certificate.

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

Darla Cullen	763-576-4176
Deb Catlett	763-576-4025

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Administrative Specialist

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ADSC 1003 2	ADSC 1010 ^[A] 3
	ADSC 1031 3	ACCT 1181 2
	ADSC 1054 4	ADSC 1206 4
	ADSC 1196 4	ADSC 1451 3
	INTS 1000 3	SMGT Elective 2
	TOTAL 16	TOTAL 14
2nd YEAR	Fall Semester	Spring Semester
	ADSC 1021 ^[B] 3	ADSC 1142 4
	ADSC 1045 4	SMGT 2602 3
	ADSC 1162 2	Gen Ed/MnTC 8
	ADSC 1171 2	TOTAL 15
	Gen Ed/MnTC 4	
TOTAL 15		

^A and ^B: See Prerequisites



Program Information

The Anoka Technical College Administrative Specialist diploma is a 45-credit program that prepares students with the broad range of technical and communications skills needed for success in today’s office work environment. Students will gain competence in word processing, spreadsheet, database, and presentation software. Keyboarding speed and accuracy is developed while grammar, punctuation and writing skills are polished. Students study bookkeeping theory and learn general ledger software in order to prepare them for general bookkeeping or accounts receivable or accounts payable positions. Students are well prepared to fulfill any office support position and may advance to office management.

Prerequisites

See Credits:

- ^[A] The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.
- ^[B] The prerequisite to ADSC1021 Keyboarding II is ADSC1010 Keyboarding I.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

A documented 5-minute timed keyboarding skill of 45 net words per minute is required for graduation from this program.

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Administrative assistants perform a full range of office tasks. They use a variety of software packages (word processing, spreadsheets, databases, graphics, desktop publishing, multi-media, etc.) to create, record, edit, and store correspondence, reports, tables and forms from many sources.

They may also read and route incoming mail, file and retrieve correspondence and other records manually or electronically, transcribe business correspondence from machine dictation, answer telephones and give information to callers or route calls to the appropriate individual, operate copying and faxing equipment, perform bookkeeping duties, transactions and make travel

arrangements.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Credits: 42 Credits

- ADSC 1003 Introduction to Keyboarding & Speedbuilding ... 2
- ADSC 1010 Keyboarding I ^[A] 3
- ADSC 1021 Keyboarding II ^[B] 3
- ADSC 1031 Business English Skills 3
- ADSC 1045 Administrative Office Procedures 4
- ADSC 1054 Office Bookkeeping..... 4
- ADSC 1142 Integrated Software Applications 4
- ADSC 1162 Microsoft PowerPoint 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1181 Microsoft Access 2
- ADSC 1196 Microsoft Word 4
- ADSC 1206 Written Business Communications 4
- ADSC 1451 Technology Tools for the Workplace..... 3

Electives2 Credits

Choose any two (2) credit Supervisory Management class.

Also see: Administrative Specialist AAS & Administrative Specialist Certificate.

General Education/MnTC Requirements: 3 Credits

- INTS 1000 Critical Thinking Application for College..... 3

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Start Dates

- Fall Semester.....August
- Spring SemesterJanuary

Faculty Contact

- [Darla Cullen](#)763-576-4176
- [Deb Catlett](#)763-576-4025

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Administrative Specialist

Diploma

Sample Program Sequence:

Full Time

		Fall Semester	Spring Semester	
1st YEAR	ADSC 1003	2	ADSC 1010 ^[A]	3
	ADSC 1031	3	ADSC 1142	4
	ADSC 1054	4	ACCT 1181	2
	ADSC 1196	4	ADSC 1206	4
	INTS 1000	3	ADSC 1451	3
	TOTAL	16	TOTAL	16
		Fall Semester		
2nd YEAR	ADSC 1021 ^[B]	3		
	ADSC 1045	4		
	ADSC 1162	2		
	ADSC 1171	2		
	SMGT Elective	2		
	TOTAL	13		

^A and ^B: See Prerequisites



Administrative Specialist

Certificate

Technical Requirements.....	24
General Education/MnTC	3
Total Credits	27

Program Information

The Anoka Technical College Administrative Specialist certificate is a 27-credit program that prepares students with the broad range of technical and communications skills needed for success in today's office work environment. Students will gain competence in word processing, spreadsheet, database, and presentation software. Keyboarding speed and accuracy is developed while grammar, punctuation and writing skills are polished. Students study bookkeeping theory and learn general ledger software in order to prepare them for general bookkeeping or accounts receivable or accounts payable positions.

Prerequisites

None.

Graduation Requirements

A documented 5-minute timed keyboarding skill of 45 net words per minute is required for graduation from this program.

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Administrative assistants perform a full range of office tasks. They use a variety of software packages (word processing, spreadsheets, databases, graphics, desktop publishing, multi-media, etc.) to create, record, edit, and store correspondence, reports, tables, and forms from many sources.

They may also read and route incoming mail, file and retrieve correspondence and other records manually or electronically, transcribe business correspondence from machine dictation, answer telephones and give information to callers or route calls to the appropriate individual, operate copying and faxing equipment, perform bookkeeping duties, transactions, and make travel arrangements. In some offices, administrative support specialists may be responsible for one or two of these areas. In a small office, they may be responsible for all of them.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Credits: 24 Credits

- ADSC 1003 Introduction to Keyboarding & Speedbuilding ... 2
- ADSC 1031 Business English Skills 3
- ADSC 1054 Office Bookkeeping 4
- ADSC 1162 Microsoft PowerPoint 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1196 Microsoft Word 4
- ADSC 1206 Written Business Communications 4
- ADSC 1451 Technology Tools for the Workplace 3

Also see: Administrative Specialist AAS & Administrative Specialist Diploma.

General Education/MnTC Requirements: 3 Credits

- INTS 1000 Critical Thinking Application for College 3

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Darla Cullen](#) 763-576-4176
[Deb Catlett](#) 763-576-4025

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	ADSC 1031 2	ADSC 1003 2
	ADSC 1054 4	ADSC 1171 2
	ADSC 1162 2	ADSC 1206 4
	ADSC 1196 4	ADSC 1451 3
	INTS 1000 3	TOTAL 11
	TOTAL 15	



Supervisory Management

Associate in Applied Science (AAS) Degree

Technical Requirements..... 45

General Education/MnTC 15

Total Credits 60

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Supervisory Management is a 60-credit program that includes certificates in Supervisory Leadership, Human Resource Development and Quality Supervision. The certificates are the building blocks of the AAS degree. Each certificate can stand alone or the three certificates can be combined with 15 general education credits, for a total of 60 credits needed for the AAS degree. The certificate and degree requirements are listed.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The supervisory field covers all areas of the private and public sector. Business and industry consistently seek out qualified employees who can move into the supervisory ranks. Anoka Technical College’s Supervisory Management program prepares individuals to perform successfully as supervisors.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

Human Resources Development Certificate..... 15

- SMGT 1612 Human Resources Management 3
- SMGT 1614 Performance Management 3
- SMGT 1616 Employment Law 2
- SMGT 1618 Employee Training & Coaching 3
- SMGT 1620 Work Teams & Facilitation Skills 2
- SMGT 1622 Field Study II 2

Quality Supervision Certificate 16

- SMGT 1624 Quality Tools & Creativity 3
- SMGT 1626 Management of Safety 2

- SMGT 1628 Documentation/Written Communication Skills .. 2
 - SMGT 1630 Field Study III 2
 - SMGT 2600 Accounting for Non-Financial Managers 2
 - SMGT 2602 Project Management/Problem Solving 3
 - SMGT 2604 Leadership Development 2
- Supervisory Leadership Certificate..... 14**
- SMGT 1600 Management Education Planning 2
 - SMGT 1602 Supervision Fundamentals 3
 - SMGT 1604 Interpersonal Skills/Customer Service 2
 - SMGT 1606 Managing Change & Conflict 2
 - SMGT 1608 Personal Leadership 3
 - SMGT 1610 Field Study I 2

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to select classes from three or more MnTC goal areas.

- General Education/MnTC Courses..... 15
- Refer to Anoka Technical College website for a list of MnTC courses and goal areas.

Also see: Human Resources Development certificate, Supervisory Leadership certificate and Quality Supervision certificate

Start Dates

- Fall Semester..... August
- Spring Semester January

Faculty Contact

[Nick Hockert](#).....763-576-4195

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Courses only offered certain semesters

Fall Semester	Spring Semester
SMGT 1600.....2	SMGT 1606.....2
SMGT 1602.....3	SMGT 1608.....3
SMGT 1604.....2	SMGT 1610.....2
SMGT 1612.....3	SMGT 1616.....2
SMGT 1614.....3	SMGT 1618.....3
SMGT 1622.....2	SMGT 1620.....2
SMGT 1624.....3	SMGT 1628.....2
SMGT 1626.....2	SMGT 1630.....2
SMGT 2600.....2	SMGT 2602.....3
	SMGT 2604.....2



Program Information

The Anoka Technical College Human Resource Development certificate is a 15-credit program that can stand alone or can be combined with the Quality Supervision certificate, the Supervisory Leadership certificate and 15 general education credits for a total of 60 credits to complete the Associate in Applied Science (AAS) degree in Supervisory Management.

Prerequisites

None.

Graduation Opportunities

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The supervisory field covers all areas of the private and public sector. Business and industry consistently seek out qualified employees who can move into the supervisory ranks. Anoka Technical College's Supervisory Management program prepares individuals to perform successfully as supervisors.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 15 Credits

- SMGT 1612 Human Resources Management 3
- SMGT 1614 Performance Management 3
- SMGT 1616 Employment Law 2
- SMGT 1618 Employee Training & Coaching 3
- SMGT 1620 Work Teams & Facilitation Skills 2
- SMGT 1622 Field Study II 2

Also see: Supervisory Management AAS degree, Supervisory Leadership certificate and Quality Supervision certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuar

Faculty Contact

[Nick Hockert](mailto:Nick.Hockert@anokatech.edu).....763-576-4195

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	SMGT 1612..... 3	SMGT 1616..... 2
	SMGT 1614..... 3	SMGT 1618 3
	TOTAL 6	SMGT 1620..... 2
		SMGT 1622..... 2
		TOTAL 9



Program Information

The Anoka Technical College Quality Supervision certificate is a 16-credit program that can stand alone or can be combined with the Human Resource Development certificate, the Supervisory Leadership certificate and 15 general education credits for a total of 60 credits to complete the Associate in Applied Science (AAS) degree in Supervisory Management.

Prerequisites

None.

Graduation Opportunities

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The supervisory field covers all areas of the private and public sector. Business and industry consistently seek out qualified employees who can move into the supervisory ranks. Anoka Technical College's Supervisory Management program prepares individuals to perform successfully as supervisors.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment report](#).

Technical Education: 16 Credits

- SMGT 1624 Quality Tools & Creativity 3
- SMGT 1626 Management of Safety 2
- SMGT 1628 Documentation/Written Communication Skills .. 2
- SMGT 1630 Field Study III 2
- SMGT 2600 Accounting for Non-Financial Managers 2
- SMGT 2602 Project Management/Problem Solving 3
- SMGT 2604 Leadership Development 2

Also see: Supervisory Management AAS degree, Supervisory Leadership certificate and Human Resources Development certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Nick Hockett](#).....763-576-4195

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	SMGT 1624..... 3	SMGT 1628..... 2
	SMGT 1626..... 2	SMGT 1630..... 3
	SMGT 2600 2	SMGT 2602..... 2
	TOTAL 7	SMGT 2604 2
		TOTAL 9

Program Information

The Anoka Technical College Supervisory Leadership certificate is a 14-credit program that can stand alone or can be combined with the Human Resource Development and Quality Supervision certificates and 15 general education credits for a total of 60 credits to complete the Associate in Applied Science (AAS) degree in Supervisory Management.

Prerequisites

None.

Graduation Opportunities

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The supervisory field covers all areas of the private and public sector. Business and industry consistently seek out qualified employees who can move into the supervisory ranks. Anoka Technical College's Supervisory Management program prepares individuals to perform successfully as supervisors.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 14 Credits

- SMGT 1600 Management Education Planning 2
- SMGT 1602 Supervision Fundamentals 3
- SMGT 1604 Interpersonal Skills/Customer Service 2
- SMGT 1606 Managing Change & Conflict 2
- SMGT 1608 Personal Leadership 3
- SMGT 1610 Field Study I 2

Also see: Supervisory Management AAS degree, Human Resources Development certificate and Quality Supervision certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Nick Hockert](mailto:Nick.Hockert@anokatech.edu) 763-576-4195
For service during summer hours contact
Enrollment Services 763-576-7710
For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	SMGT 1600..... 2	SMGT 1606..... 2
	SMGT 1602..... 3	SMGT 1608..... 3
	SMGT 1604..... 2	TOTAL 5
	SMGT 1610 2	
	TOTAL 9	



**Engineering,
Manufacturing
& Technology**

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Architectural Technology is a 60-credit program. The program consists of technical courses designed to develop skills which can be applied to a wide variety of careers in the design-construction industry including employment with architectural and engineering firms, residential builders, and construction material supplies.

In addition to drafting and detailing skills, the student receive training in related areas such as construction estimating, building codes, building mechanical and electrical systems, as well as emerging technologies in energy-efficient design. Students receive hands-on training in industry standard computer-aided drafting software (AutoCAD and Revit).

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Graduates of the Architectural Technology AAS degree program learn skills and technology which can be applied to a wide variety of careers in the design-construction industry, including employment with architectural and engineering firms, residential builders, and construction material suppliers.

Drafters who gain experience and knowledge may become design drafters or senior drafters. With additional training or experience, drafters may also move into related positions, such as technical writer, sales engineer or engineering assistant.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

<input type="checkbox"/>	ARCH 1000 Residential Construction.....	2
<input type="checkbox"/>	ARCH 1002 Construction Print Reading.....	2
<input type="checkbox"/>	ARCH 1015 Commercial Construction.....	2
<input type="checkbox"/>	ARCH 1031 Building Systems.....	2
<input type="checkbox"/>	ARCH 1035 Green Building Strategies.....	1
<input type="checkbox"/>	ARCH 1040 Residential Graphics.....	1
<input type="checkbox"/>	ARCH 1045 Commercial Graphics.....	1
<input type="checkbox"/>	ARCH 1051 Architectural CAD I.....	3
<input type="checkbox"/>	ARCH 1052 Architectural CAD II.....	3
<input type="checkbox"/>	ARCH 2005 Residential CAD Studio.....	4
<input type="checkbox"/>	ARCH 2025 Revit Architectural 3D CAD.....	2
<input type="checkbox"/>	ARCH 2027 Intermediate Revit 3D CAD.....	2
<input type="checkbox"/>	ARCH 2029 Advanced Revit 3D CAD.....	3
<input type="checkbox"/>	ARCH 2030 Building Codes.....	1
<input type="checkbox"/>	ARCH 2055 Commercial CAD Studio.....	3
<input type="checkbox"/>	ARCH 2070 Commercial Design.....	2
<input type="checkbox"/>	ARCH 2085 Structural Technology.....	3
<input type="checkbox"/>	CEST 1000 Construction Estimating I.....	3
<input type="checkbox"/>	CEST 1010 Construction Estimating II.....	3
<input type="checkbox"/>	CEST 1030 Project Management for Estimators.....	2

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required.

- General Education/MnTC Courses..... 15
- Refer to the Anoka Technical College Web site for a list of the MnTC goal areas.

Also see: Architectural Technology diploma, Construction Estimating certificate and Construction Electrician diploma

Start Dates

Fall Semester.....August
 Spring Semester.....January (with instructor approval)

Faculty Contact

Jay Boyle.....763-576-4056

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Architectural Technology

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

*Full Time

		Fall Semester	Spring Semester	
1st YEAR	ARCH 1000	2	ARCH 1015	2
	ARCH 1002	2	ARCH 1045	1
	ARCH 1040	1	ARCH 1052	3
	ARCH 1051	3	ARCH 2025	2
	CEST 1000	3	CEST 1010	3
	TOTAL	11	TOTAL	11
		Fall Semester	Spring Semester	
2nd YEAR	ARCH 1035	1	ARCH 1031	2
	ARCH 2005	4	ARCH 2029	3
	ARCH 2027	2	ARCH 2030	1
	ARCH 2070	2	ARCH 2055	3
	ARCH 2085	3	TOTAL	9
	CEST 1030	2		
TOTAL	14			

*Does not include General Education/MnTC credits. Students are required to complete 15 MnTC credits.



Program Information

The Anoka Technical College Architectural and Construction Technician diploma is a 54-credit program that consists of skills and technology which can be applied to a wide variety of careers in the design-construction industry including employment with architectural and engineering firms, residential builders, and construction material suppliers.

The Architectural and Construction Technology program consists of technical courses designed to develop skills related to the fields of architecture, engineering, contracting, and other design-construction fields.

In addition to drafting and detailing skills, the student receive training in related areas such as construction estimating, building codes, building mechanical and electrical systems, as well as emerging technologies in energy-efficient design. Students receive hands-on training in industry standard computer-aided drafting software (AutoCAD and Revit).

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Graduates of the Architectural and Construction Technician diploma program learn skills and technology which can be applied to a wide variety of careers in the design-construction industry, including employment with architectural and engineering firms, residential builders and construction material suppliers.

Drafters who gain experience and knowledge may become design drafters or senior drafters. With additional training or experience, drafters may also move into related positions, such as technical writer, sales engineer, or engineering assistant.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 45 Credits

<input type="checkbox"/>	ARCH 1000 Residential Construction.....	2
<input type="checkbox"/>	ARCH 1002 Construction Print Reading.....	2
<input type="checkbox"/>	ARCH 1015 Commercial Construction.....	2
<input type="checkbox"/>	ARCH 1031 Building Systems.....	2
<input type="checkbox"/>	ARCH 1035 Green Building Strategies.....	1
<input type="checkbox"/>	ARCH 1040 Residential Graphics.....	1
<input type="checkbox"/>	ARCH 1045 Commercial Graphics.....	1
<input type="checkbox"/>	ARCH 1051 Architectural CAD I.....	3
<input type="checkbox"/>	ARCH 1052 Architectural CAD II.....	3
<input type="checkbox"/>	ARCH 2005 Residential CAD Studio.....	4
<input type="checkbox"/>	ARCH 2025 Revit Architecture 3D CAD.....	2
<input type="checkbox"/>	ARCH 2027 Intermediate Revit 3D CAD.....	2
<input type="checkbox"/>	ARCH 2029 Advanced Revit 3D CAD.....	3
<input type="checkbox"/>	ARCH 2030 Building Codes.....	1
<input type="checkbox"/>	ARCH 2055 Commercial CAD Studio.....	3
<input type="checkbox"/>	ARCH 2070 Commercial Design.....	2
<input type="checkbox"/>	ARCH 2085 Structural Technology.....	3
<input type="checkbox"/>	CEST 1000 Construction Estimating I.....	3
<input type="checkbox"/>	CEST 1010 Construction Estimating II.....	3
<input type="checkbox"/>	CEST 1030 Project Management for Estimators.....	2

General Education/MnTC Requirements: 9 Credits

Nine (9) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- COMP 1002 Computer Technologies for Communications..... 2
- SPCH 1200 Interpersonal Communications..... 3
- General Education Elective..... 4

Also see: Architectural Technology AAS degree, Construction Estimating certificate and Construction Electrician diploma

Start Dates

Fall Semester.....August
Spring Semester.....January (with instructor approval)

Faculty Contact

[Jay Boyle](#)..... 763-576-4056

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Architectural and Construction Technician

Diploma

Sample Program Sequence:

Full Time

		Fall Semester	Spring Semester	
1st YEAR	ARCH 1000	2	ARCH 1015	2
	ARCH 1002	2	ARCH 1045	1
	ARCH 1040	1	ARCH 1052	3
	ARCH 1051	3	ARCH 2025	2
	CEST 1000	3	CEST 1010	3
	COMP 1002	2	SPCH 1200	3
	TOTAL	13	TOTAL	14
2nd YEAR	Fall Semester		Spring Semester	
	ARCH 1035	1	ARCH 1031	2
	ARCH 2005	4	ARCH 2029	3
	ARCH 2027	2	ARCH 2030	1
	ARCH 2070	2	ARCH 2055	3
	ARCH 2085	3	MnTC Elective.....	4
	TOTAL	14	TOTAL	12



Program Information

The Anoka Technical College Construction Electrician diploma is a 72-credit program designed to develop skills in the installation and testing of electrical fixtures. Students will study wiring, including blueprint reading, wiring code, electrical theory and wiring laboratory. Many graduates of this program join unions to complete their apprenticeship training.

Endorsements

The Construction Electrician diploma is approved by:

- State Board of Electricity
- Twin Cities Joint Apprenticeship Committee,
- Many unions in the upper Midwest, including:
 - Local 110 (St. Paul)
 - Local 292 (Minneapolis)
 - Local 343 (Mankato)
 - Local 242 (Duluth)
 - Local 294 (Bemidji, Iron Range)
 - Local 1426 (Fargo, East Grand Forks, Grand Forks)
 - Local 426 (Sioux City, Sioux Falls, Colorado, and Kansas)

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective Construction Electrician students should have a high school diploma or GED. Helpful high school courses include electronics, drafting, carpentry, and algebra/ trigonometry. Physical exertion is often required and electrical construction may be performed outdoors or under such conditions as heights, unfinished construction or high voltages.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As a construction electrician, program graduates will work with electrical materials on construction and remodeling jobs. More specifically, construction electricians plan, assemble, install, and test

electrical fixtures, apparatus, and wiring that is used in both new and existing buildings. Construction electricians must have complete knowledge of electrical codes, theory, and materials in order to correctly install and troubleshoot all types of electrical equipment and controls as required for each type of building.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Experienced electricians who work for large companies have several options for advancement. Those who have good people skills may become supervisors. Those who have good organizational skills may become managers. Construction electricians may transfer to electrical jobs in the shipbuilding, automobile, or aircraft industries. Some electricians start their own businesses. Those who have a master electrician’s license may become contractors.

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 60 Credits

<input type="checkbox"/>	ELEC 1001	Electrical Theory I	5
<input type="checkbox"/>	ELEC 1020	Residential Wiring Lab I	4
<input type="checkbox"/>	ELEC 1030	National Electrical Code I	2
<input type="checkbox"/>	ELEC 1061	Electrical Theory II	5
<input type="checkbox"/>	ELEC 1080	Residential Wiring Lab II	4
<input type="checkbox"/>	ELEC 1090	National Electrical Code II	3
<input type="checkbox"/>	ELEC 1101	Power Limited	2
<input type="checkbox"/>	ELEC 1107	PLC’s and Electronics for Electricians	6
<input type="checkbox"/>	ELEC 1110	Lighting.....	2
<input type="checkbox"/>	ELEC 1121	Electrical Heating & Air Conditioning	2
<input type="checkbox"/>	ELEC 1130	Plan Reading	2
<input type="checkbox"/>	ELEC 1140	Safety Principles/OSHA I	1
<input type="checkbox"/>	ELEC 1141	Safety/OSHA II.....	2
<input type="checkbox"/>	ELEC 2010	Commercial Wiring Lab I.....	3
<input type="checkbox"/>	ELEC 2020	Motors and Controls I.....	2
<input type="checkbox"/>	ELEC 2030	National Electrical Code III.....	3
<input type="checkbox"/>	ELEC 2040	Three-Phase Electrical Theory.....	4
<input type="checkbox"/>	ELEC 2060	Commercial Wiring Lab II.....	3
<input type="checkbox"/>	ELEC 2071	Motors and Controls II.....	3
<input type="checkbox"/>	ELEC 2080	National Electrical Code IV.....	2

General Education/MnTC Requirements: 12 Credits

Twelve general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	ENGL 1105	Composition I	4
<input type="checkbox"/>	MATH 1400	Algebra and Trigonometry.....	5
<input type="checkbox"/>	SPCH 1200	Interpersonal Communication	3

Also see: Architectural Technology AAS degree, Construction Estimating certificate and Architectural Technology diploma



(continued)

2016-2017

Construction Electrician

Diploma

Start Dates

Spring Semester January
Fall Semester August

Faculty Contact

[Brian Schelkoph](#) 763-576-4228
[Tim Simpson](#) 763-576-4142

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	Summer Semester (4 weeks)
1st YEAR	ELEC 1001..... 5	ELEC 1061..... 5	ELEC 1101..... 2
	ELEC 1020..... 4	ELEC 1080..... 4	ELEC 1110..... 2
	ELEC 1030..... 2	ELEC 1090..... 3	ELEC 1121..... 2
	ELEC 1140..... 1	ELEC 1141..... 2	ELEC 1130..... 2
	MATH 1400 ... 5	TOTAL..... 14	TOTAL..... 8
TOTAL..... 17			
2nd YEAR	Fall Semester	Spring Semester	
	ELEC 2010..... 3	ELEC 1107..... 4	
	ELEC 2020..... 2	ELEC 2060 3	
	ELEC 2030..... 3	ELEC 2071..... 2	
	ELEC 2040..... 4	ELEC 2080..... 3	
ENGL 1105 4	SPCH 1200..... 4		
TOTAL..... 16	TOTAL..... 17		



Program Information

The Anoka Technical College Construction Estimating certificate is a 26-credit program that consists of technical courses designed to develop skills relating to the field of construction cost estimating, quantity surveying and building materials.

In addition to estimating skills, the student receive training in related areas such as plan reading, residential/commercial construction, specifications, construction scheduling and building HVAC and electrical systems.

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective students should have a high school diploma or GED. A background in construction, drafting, algebra/trigonometry and computers can be helpful.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Graduates of the Construction Estimating certificate program learn skills and technology that can be applied to a wide variety of construction industry employers including construction subcontractors, lumber suppliers, home improvement centers and construction material suppliers.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 21 Credits

- ARCH 1000 Residential Construction..... 2
- ARCH 1002 Construction Print Reading..... 2
- ARCH 1015 Commercial Construction..... 2
- ARCH 1031 Building Systems..... 2
- ARCH 1035 Green Building Strategies..... 1
- CEST 1000 Construction Estimating I..... 3
- CEST 1010 Construction Estimating II..... 3
- CEST 1020 Computer Estimating..... 2
- CEST 1030 Project Management for Estimators..... 2
- CEST 1040 CAD Applications for Estimators..... 2

General Education/MnTC Requirements: 5 Credits

Five (5) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- SPCH 1200 Interpersonal Communications..... 3
- COMP 1002 Computer Technologies for Communication..... 2

Also see: Architectural Technology (AAS) degree or diploma.

Start Dates

Fall Semester.....August
 Spring Semester.....January (with instructor approval)

Faculty Contact

[Jay Boyle](#)..... 763-576-4056

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ARCH 1000 2	ARCH 1015 2
	ARCH 1002 2	ARCH 1031 2
	ARCH 1035 1	CEST 1010 3
	CEST 1000 3	CEST 1020 2
	CEST 1030 2	CEST 1040 2
	COMP 1002 2	SPCH 1200 3
	TOTAL 12	TOTAL 14

Biomedical Equipment Technician (BMET)

Associate in Applied Science (AAS) Degree

Technical Requirements57

General Education/MnTC 15

Total Credits72

Program Information

The Anoka Technical College Biomedical Equipment Technician (BMET) program is a 72-credit Associate in Applied Science (AAS) degree that includes technical and general education components. This degree provides the skills for working in hospitals, manufacturing, and field service plus the possibility to pursue a Bachelor of Arts (BA) degree with cooperating colleges and universities. Full time students can obtain an applied associate science degree in two years. Financial assistance is available for those who qualify and there are several BMET program specific scholarships available.

Designed by biomedical and manufacturing industry leaders, the program provides a comprehensive, hands-on, career-oriented curriculum. Students will obtain a solid education in biomedical devices/industry fundamentals, electronic engineering fundamentals, computer/networking fundamentals.

Biomedical technicians play a vital role in health care; enhancing the user experience by ensuring all medical equipment is safe and in proper working condition. Technicians inspect, calibrate, maintain, and repair diagnostic equipment, monitoring equipment, therapeutic and life-saving medical equipment (defibrillators, ventilators, drug delivery pumps, CT and MRI Scanners, and more) found in hospitals, medical clinics, imaging centers and medical device companies.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

In today's health care market, technology is paramount. The need for a workforce knowledgeable in the theory of operation, underlying physiological principles, and safe application of biomedical equipment is a central concern of many hospitals and companies.

The BMET is a skilled technician that demonstrates the knowledge to ensure a safe, reliable health care environment. Referenced from International Certification Commission (ICC) handbook <http://www.aami.org/certification/>.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 57 Credits

- BMED 1100* Introduction to Biomedical Devices/Industry 2
 - BMED 2100* Design & Manufacturing in Medical Device Industry 3
 - BMED 2200 *Introduction to Medical Device Regulations/Ethics..... 3
 - BMED 2300*Introduction to Quality Assurance 3
 - BMET 1200 Biomedical Equipment and Terminology 2
 - BMET 1301 Biomedical Networking 2
 - BMET 2012 Biomedical Instrumentation..... 4
 - ETEC 1102 Mechatronics 1 DC 3
 - ETEC 1113 Mechatronics 2 AC 3
 - ETEC 1130 Intro to Electronic Engineering Technology 2
 - ETEC 1140 Circuit Analysis 1 2
 - ETEC 1151 Computer Troubleshooting A+ 3
 - ETEC 1170 Programmable Logic Controllers (PLCs) 2
 - ETEC 1202 Solid State Electronic 5
 - ETEC 1250 Digital 1 3
 - ETEC 1260 Lasers and Optics..... 2
 - ETEC 1271 Technical Documentation 3
 - ETEC 1281 Engineering Technology Programming:
LabVIEW and C++ 2
 - ETEC 2138 LabVIEW and Data Acquisition 4
 - ETEC 2276 Industrial Networking IOT/M2M..... 4
- * Evening courses taken at Anoka-Ramsey Community College.

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- BIOL 1104* The Human Body-Structure & Function 4
- MATH 1550 Introduction to Statistics 4\
- SPCH 1200 Interpersonal Communication 3
- General Education/MnSCU Courses 4

* Course is taken at Anoka-Ramsey Community College

Also see: *Electronic Engineering Technology AAS degree and Electronic Engineering diploma*

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Tom Reid](#) 763-576-4905
[Daniel Truchon](#) 763-576-4185

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Biomedical Equipment Technician (BMET)

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	Summer Semester
1st YEAR	ETEC 1102..... 3	BMET 1301..... 2	MATH 1550* 4
	ETEC 1130..... 2	ETEC 1113..... 3	SPCH 1200*..... 3
	ETEC 1140..... 2	ETEC 1170..... 2	TOTAL..... 7
	ETEC 1151..... 3	ETEC1202..... 5	
	ETEC 1250..... 3	ETEC 1260..... 2	
	ETEC 1271..... 3	ETEC 1281..... 2	
	TOTAL..... 16	TOTAL..... 16	
2nd YEAR	Fall Semester	Spring Semester	
	BMED 1100 2	BMED 2200..... 3	
	BMED 2100 3	BMET 2012..... 4	
	BMED 2300..... 3	BIOL 1104..... 4	
	BMET 1200 3	Gen Ed/MnTC* ... 8	
	ETEC 2138..... 4	TOTAL 19	
	ETEC 2276..... 4		
TOTAL 19			

**For the AAS degree: Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required.*



Program Information

The Anoka Technical College Electronic Engineering Technology (EET) program offers a 72-credit Electronic Engineering Engineering Technology Associate in Applied Science (AAS) degree that prepares students to work with mechatronics, robotics, automation and controls, computer servicing/networking, biomedical equipment.

Students gain a thorough understanding of how computers and machines communicate as well as system level troubleshooting, and a solid education in electronic engineering technology fundamentals.

Students will also learn about:

- Mechatronics
- Lasers and Optics
- Robotics
- Computer Troubleshooting A+
- Networking
- Programmable Logic Controllers (PLCs)
- LabVIEW programming applications
- Motor Control
- Microcontrollers
- Advanced Troubleshooting
- Project Management
- Interpersonal Skills, such as customer service and teamwork

Designed by electronic engineering industry leaders, the program provides a comprehensive, hands-on, career-oriented curriculum. Students will obtain a solid education in electronic engineering fundamentals, mechatronics, robotics, automation and controls, computer servicing/networking, Biomedical Equipment Technician (BMET). Full time students can obtain an Electronic Technician diploma in two semesters, and an associate applied science degree in four semesters. Financial assistance is available for those who qualify and there are several EET program-specific scholarships available.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

For students who want to continue their education and obtain their four-year degree, the Electronic Engineering Technology (EET) program, has articulation agreements with Minnesota State University (Mankato), Minnesota State University (Moorhead), Bemidji State University, and University of Minnesota Crookston. Students can complete most of these four-year degrees through online courses.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As part of the Electronic Engineering Technology (EET) program, Electronic Engineering Technology (EET) Associate in Applied Science (AAS) degree provides students with the technical knowledge and practical experience necessary for an exciting career in electronics, mechatronics, robotics, automation and controls, computer servicing/networking, biomedical equipment technician (BMET), and engineering support.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/>	BMET 1301	Biomedical Networking	2
<input type="checkbox"/>	ETEC 1102	Mechatronics 1 DC	3
<input type="checkbox"/>	ETEC 1113	Mechatronics 2 AC	3
<input type="checkbox"/>	ETEC 1130	Introduction to Electronic Engineering Technology.....	2
<input type="checkbox"/>	ETEC 1140	Circuit Analysis	2
<input type="checkbox"/>	ETEC 1151	Computer Troubleshooting A+	3
<input type="checkbox"/>	ETEC 1170	Programmable Logic Controllers (PLCs).....	2
<input type="checkbox"/>	ETEC 1202	Solid State Electronics	5
<input type="checkbox"/>	ETEC 1250	Digital 1	3
<input type="checkbox"/>	ETEC 1260	Lasers and Optics	2
<input type="checkbox"/>	ETEC 1271	Technical Documentation	3
<input type="checkbox"/>	ETEC 1281	Engineering Technology Programming: LabVIEW and C++	2
	Technical Core Subtotal		32
<input type="checkbox"/>	ETEC 2011	Machine-to-Machine Wireless Communications	2
<input type="checkbox"/>	ETEC 2138	LabVIEW and Data Acquisition	4
<input type="checkbox"/>	ETEC 2143	Advanced Programmable Logic Controllers (PLCs).....	3
<input type="checkbox"/>	ETEC 2162	Robotics and Automation Controls.....	5
<input type="checkbox"/>	ETEC 2172	Mechatronics Capstone Project	5
<input type="checkbox"/>	ETEC 2177	Mechatronics Capstone Design and Documentation	2
<input type="checkbox"/>	ETEC 2276	Industrial Networking IOT/M2M	4

(continued)

2016-2017

Electronic Engineering Technology

Associate in Applied Science (AAS) Degree

General Education/MnTC Requirements: 15 Credits

Fifteen general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- MATH 1550 Introduction to Statistics 4
- General Education/MnTC Courses..... 11

Also see: Biomedical Equipment Technician AAS degree and Electronic Technology diploma

Start Dates

Fall Semester.....August

Faculty Contact

[Tom Reid](#)..... 763-576-4905
[Daniel Truchon](#)..... 763-576-4185

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	Summer Semester
1 st YEAR	ETEC 1130..... 2	ETEC 1113..... 3	MATH 1550..... 4
	ETEC 1102..... 3	ETEC 1202..... 5	Gen Ed/MnTC..... 3
	ETEC 1140..... 2	ETEC 1170..... 2	TOTAL..... 7
	ETEC 1151..... 3	BMET 1301..... 2	
	ETEC 1271..... 3	ETEC 1260..... 2	
	ETEC 1250..... 3	ETEC 1281..... 2	
	TOTAL..... 16	TOTAL..... 14	
2 nd YEAR	Fall Semester	Spring Semester	
	ETEC 2138..... 4	ETEC 2011..... 2	
	ETEC 2162..... 5	ETEC 2172..... 5	
	ETEC 2143..... 3	ETEC 2177..... 2	
	ETEC 2276..... 4	Gen Ed/MnTC..... 8	
	TOTAL..... 16	TOTAL..... 17	



Special Electronics Technician

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical Electronic Engineering Technology (EET) program includes a 72-credit Special Electronics Technician Associate in Applied Science (AAS) degree emphasis program that prepares students in core electronic engineering technology skills, as well as a broad background in computer support and networking.

Prerequisites

This program requires instructor approval.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As part of the Electronic Engineering Technology (EET) program, the Special Electronics Technician (EET) emphasis Associate in Applied Science (AAS) degree provides students with the technical knowledge and practical experience necessary for an exciting career in electronics, mechatronics, robotics, automation and controls, computer servicing/networking, biomedical equipment technician (BMET) and engineering support.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

- Special Electronics Technician Core Credits** 37
- BMET 1301 Biomedical Networking 2
- ETEC 1102 Mechatronics 1 DC 3
- ETEC 1113 Mechatronics 2 AC 3
- ETEC 1130 Introduction to Electronic Technology 2
- ETEC 1140 Circuit Analysis 2
- ETEC 1151 Computer Troubleshooting A+ 3
- ETEC 1170 Programmable Logic Controllers (PLCs) 2

- ETEC 1202 Solid State Electronics 5
- ETEC 1250 Digital 1 3
- ETEC 1260 Lasers and Optics 2
- ETEC 1271 Technical Documentation 3
- ETEC 1281 Engineering Technology Programming: LabVIEW and C++ 2
- ETEC 2011 Machine-to-Machine Wireless Communications 2
- ETEC 2143 Advanced Programmable Logic Controllers (PLCs) 3

Special Electronics Technician 20

The Anoka Technical College Associate in Applied Science (AAS) degree in Special Electronic Technical emphasis is an individualized degree program that requires pre-approval from the Electronic Engineering Department chairperson. See your program advisor for more information.

General Education/MnTC Requirements: 15 Credits

Fifteen general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- *MATH 1550 Introduction to Statistics 4
- General Education/MnTC Courses 11

Also see: Biomedical Equipment Technician AAS degree and Electronic Engineering Technology AAS degree and Electronic Technology diploma

Start Dates

Fall Semester August

Faculty Contact

[Tom Reid](#) 763-576-4905
[Daniel Truchon](#) 763-576-4185

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	Summer Semester
1 st YEAR	ETEC 1102 3	BMET 1301 2	MATH 1550 4
	ETEC 1130 2	ETEC 1113 3	Gen Ed/MnTC 3
	ETEC 1140 2	ETEC 1170 2	TOTAL 7
	ETEC 1151 3	ETEC 1202 5	
	ETEC 1271 3	ETEC 1260 2	
	ETEC 1250 3	ETEC 1281 2	
	TOTAL 16	TOTAL 16	
2 nd YEAR	Fall Semester	Spring Semester	
	ETEC 2143 3 *see advisor	ETEC 2011 2 *see advisor	



Program Information

The Anoka Technical Electronic Engineering Technology (EET) program includes a 32-credit Electronic Technology diploma that provides students with the technical knowledge necessary to start a career in electronics.

Full-time students may complete an Electronic Technology diploma in two semesters. Full-time students who continue in the program can obtain an AAS degree in Electronic Engineering Technology (EET) with an additional two semesters.

Students will obtain a solid education in electronic fundamentals, as well as system-level troubleshooting.

Students will also learn about:

- Mechatronics
- Lasers and Optics
- Robotics
- Computer Troubleshooting A+
- Networking
- Programmable Logic Controllers (PLCs)
- LabVIEW programming applications

Financial assistance is available for those who qualify and there are several EET program specific scholarships available.

Prerequisites

Some courses may require an Accuplacer score or completing basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As part of the Electronic Engineering Technology program, the Electronic Technology diploma provides students with the technical knowledge necessary to start their career in electronics and manufacturing support.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 32 Credits

- BMET 1301 Biomedical Networking 2
- ETEC 1102 Mechatronics 1 DC 3
- ETEC 1113 Mechatronics 2 AC 3
- ETEC 1130 Introduction to Electronic Engineering Technology 2
- ETEC 1140 Circuit Analysis 2
- ETEC 1151 Computer Troubleshooting A+ 3
- ETEC 1170 Programmable Logic Controllers (PLCs) 2
- ETEC 1202 Solid State Eletronics 5
- ETEC 1250 Digital 1 3
- ETEC 1260 Lasers and Optics 2
- ETEC 1271 Technical Documentation 3
- ETEC 1281 Engineering Technology Programming: LabVIEW and C++ 2

Also see: Special Electronic Technical emphasis (AAS), Bio Medical Equipment Technician AAS, Electronic Engineering Technology AAS

Start Dates

Fall Semester.....August

Faculty Contact

[Tom Reid](#)..... 763-576-4905
[Daniel Truchon](#)..... 763-576-4185

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence

Full Time

	Fall Semester	Spring Semester
1st YEAR	ETEC 1102..... 3	BMET 1301..... 2
	ETEC 1130..... 2	ETEC 1113..... 3
	ETEC 1140..... 2	ETEC 1170..... 2
	ETEC 1151..... 3	ETEC 1202..... 5
	ETEC 1250..... 3	ETEC 1260..... 2
	ETEC 1271..... 3	ETEC 1281..... 2
	TOTAL..... 16	TOTAL..... 16



Program Information

The CNC Design & Manufacturing Technology associate of Applied Science (AAS) is a 69-credit degree program includes technical and general education components to provide the skills for trade entry plus the possibility to pursue a Bachelor of Arts (BA) degree with cooperating colleges and universities.

The CNC Manufacturing Technology degree program prepares people to write and edit CNC programs, perform complex setups, basic troubleshooting of machine problems, cycle time reduction practices, fixture design and building, recognize areas for process improvements and operate the following equipment: manual lathes, grills mills, grinders, CNC programming, CNC mills, CNC lathes, coordinate measuring machine, CAD/CAM and 4&5 axis CNC mills.

Graduates are also skilled in the areas of basic troubleshooting of machine problems, cycle time reduction practices, fixture design and building, blueprint reading, GD&T, statistical process control, lean manufacturing, math, inspection and the correct sequence of operation required. Graduates may also be skilled in the areas of tool and cutter, CNC wire EDM and CNC sinker EDM, and CNC parametric programming depending on elective taken.

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, a background in shop math and algebra, mechanical drafting machine shop and mechanical skills can be helpful.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed to turn out a finished machine product and to switch readily from one kind of product to another. The machinist’s background and knowledge enables him/her to turn a block of metal into an intricate,

precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Employees in this position are expected to write and edit CNC programs, perform complex setups, basic troubleshooting of machine problems, cycle time reduction practices, fixture design and building and recognize areas for process improvements on manual lathes, drills, mills, grinders, CNC mills, CNC lathes, CNC wire EDM and CNC sinker EDM, coordinate measuring machine, and CAD/CAM. Employees are also expected to invoke lean manufacturing process and practices.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 54 Credits

<input type="checkbox"/>	MACH 1100 Machine Technology I	7
<input type="checkbox"/>	MACH 1121 Machine Technology II.....	2
<input type="checkbox"/>	MACH 1132 Blueprint Reading I	3
<input type="checkbox"/>	MACH 1140 CAD I	1
<input type="checkbox"/>	MACH 1200 Machine Technology III	3
<input type="checkbox"/>	MACH 1220 Machine Technology IV.....	2
<input type="checkbox"/>	MACH 1231 Blueprint Design/ CAD II	1
<input type="checkbox"/>	MACH 1240 Geometric Dimensioning & Tolerancing	3
<input type="checkbox"/>	MACH 1250 CNC I.....	2
<input type="checkbox"/>	MACH 1261 CNC Programming I.....	3
<input type="checkbox"/>	MACH 2310 CNC II	3
<input type="checkbox"/>	MACH 2320 CNC III.....	3
<input type="checkbox"/>	MACH 2331 CAM I.....	1
<input type="checkbox"/>	MACH 2340 CNC Programming II	2
<input type="checkbox"/>	MACH 2351 Mold/Die Making Theory.....	3
<input type="checkbox"/>	MACH 2360 Fixture and Tooling	4
<input type="checkbox"/>	MACH 2450 CNC Design and Manufacture	5
<input type="checkbox"/>	MACH 2461 Multi-Axis Programming	1
<input type="checkbox"/>	MACH 2471 Multi-Axis Machining	3
Choose two credits:		
<input type="checkbox"/>	MACH 2410 Tool and Cutter Grinding.....	1
<input type="checkbox"/>	MACH 2420 EDM Machining.....	2
<input type="checkbox"/>	MACH 2430 CAM II.	2
<input type="checkbox"/>	MACH 2440 CNC Programming III.....	1

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	MATH 1650 College Trigonometry	3
<input type="checkbox"/>	General Education/MnTC Courses.....	12

Also see: Machinist diploma, CNC Machinist diploma and



(continued)

2016-2017

CNC Design & Manufacturing Technology

Associate in Applied Science (AAS) Degree

Advanced CNC Machine Technology diploma

Start Dates

Fall Semester.....August
Spring Semester.....January

Faculty Contact

[Jerry Showalter](#) 763-576-4043
[Jesse Oldenburg](#) 763-576-4065
[Matt Rogers](#) 763-576-4088
[Brendon Paulson](#) 763-576-4243

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

		1 st YEAR	2 nd YEAR
	First Semester	MACH 1100..... 7 MACH 1121..... 2 MACH 1132..... 3 MACH 1140..... 1 MATH 1650..... 3 TOTAL 16	Second Semester MACH 1200..... 3 MACH 1220..... 2 MACH 1231..... 1 MACH 1240..... 3 MACH 1250..... 2 MACH 1261..... 3 Gen Ed/MnTC..... 3 TOTAL 14
	Third Semester	MACH 2310..... 3 MACH 2320..... 3 MACH 2331..... 1 MACH 2340..... 2 MACH 2351..... 3 MACH 2360..... 4 Gen Ed/MnTC..... 2 TOTAL 18	Fourth Semester MACH 2450..... 5 MACH 2461..... 1 MACH 2471..... 3 Technical elective..... 2 Gen Ed/MnTC..... 7 TOTAL 18



Program Information

The Anoka Technical College Advanced CNC Machine Technology diploma is a 63-credit program that includes technical and general education components. The career major prepares students to write and edit CNC programs, perform complex setups, basic troubleshooting of machine problems, cycle time reduction practices, fixture design and building, recognize areas for process improvements and operate the following equipment: manual lathes, drills, mills, grinders, CNC mills, CNC lathes, CNC wire EDM and CNC sinker EDM, coordinate measuring machine, CAD/CAM and 4&5 axis CNC mills.

Program graduates are skilled in the areas of CNC programming, parametric programming, basic troubleshooting of machine problems, cycle time reduction practices, fixture design and building, blueprint reading, GD&T, statistical process control, lean manufacturing, math, inspection, and the correct sequence of operation required.

Those employed in this position are expected to write and edit CNC programs, perform complex setups, basic troubleshoot of machine problems, cycle time reduction practices, fixture design and building and recognize areas for process improvements on manual lathes, drills, mills, grinders, CNC mills, CNC lathes, CNC wire EDM and CNC sinker EDM, coordinate measuring machine, and CAD/CAM. Employees are also expected to invoke lean manufacturing process and practices.

The CNC Manufacturing Technology program provides the skills for trade entry plus the possibility to pursue a bachelor of arts (BA) degree with cooperating colleges and universities.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed

to turn out a finished machine product and to switch readily from one kind of product to another. The machinist’s background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Wages/Outlook/Advancement

Follow this link for a [Gainful Employment Report](#).

Technical Education: 63 Credits

<input type="checkbox"/>	MACH 1100 Machine Technology I.....	7
<input type="checkbox"/>	MACH 1121 Machine Technology II.....	2
<input type="checkbox"/>	MACH 1132 Blueprint Reading I.....	3
<input type="checkbox"/>	MACH 1140 CAD I.....	1
<input type="checkbox"/>	MACH 1171 Math for Machinist I.....	3
<input type="checkbox"/>	MACH 1200 Machine Technology III.....	3
<input type="checkbox"/>	MACH 1220 Machine Technology IV.....	2
<input type="checkbox"/>	MACH 1231 Blueprint Design/ CAD II.....	1
<input type="checkbox"/>	MACH 1240 Geometric Dimensioning & Tolerancing.....	3
<input type="checkbox"/>	MACH 1250 CNC I.....	2
<input type="checkbox"/>	MACH 1261 CNC Programming I.....	3
<input type="checkbox"/>	MACH 1271 Math for Machinist II.....	2
<input type="checkbox"/>	MACH 2310 CNC II.....	3
<input type="checkbox"/>	MACH 2320 CNC III.....	3
<input type="checkbox"/>	MACH 2331 CAM I.....	1
<input type="checkbox"/>	MACH 2340 CNC Programming II.....	2
<input type="checkbox"/>	MACH 2351 Mold/Die making Theory.....	3
<input type="checkbox"/>	MACH 2360 Fixture and Tooling.....	4
<input type="checkbox"/>	MACH 2410 Tool and Cutter Grinding.....	1
<input type="checkbox"/>	MACH 2420 EDM Machining.....	2
<input type="checkbox"/>	MACH 2430 CAM II.....	2
<input type="checkbox"/>	MACH 2440 CNC Programming III.....	1
<input type="checkbox"/>	MACH 2450 CNC Design and Manufacture.....	5
<input type="checkbox"/>	MACH 2461 Multi-Axis Programming.....	1
<input type="checkbox"/>	MACH 2471 Multi-Axis Machining.....	3

Also see: CNC Design & Manufacturing Technology AAS and Advanced CNC Machine Technology diploma

Start Dates

Fall Semester.....	August
Spring Semester.....	January



(continued)

2016-2017

Advanced CNC Machine Technology

Diploma

Faculty Contact

Jerry Showalter	763-576-4043
Jesse Oldenburg	763-576-4065
Matt Rogers	763-576-4088
Brendon Paulson	763-576-4243

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

		1 st YEAR	2 nd YEAR
	First Semester		Second Semester
	MACH 1100.....	7	MACH 1200..... 3
	MACH 1121.....	2	MACH 1220..... 2
	MACH 1132.....	3	MACH 1231..... 1
	MACH 1140.....	1	MACH 1240..... 3
	MACH 1171.....	3	MACH 1250..... 2
	TOTAL	16	MACH 1261..... 3
			MACH 1271..... 2
			TOTAL
			16
	Third Semester		Forth Semester
	MACH 2310.....	3	MACH 2410..... 5
	MACH 2320.....	3	MACH 2420..... 1
	MACH 2331.....	1	MACH 2430..... 3
	MACH 2340.....	2	MACH 2440..... 1
	MACH 2351.....	3	MACH 2450..... 1
	MACH 2360.....	4	MACH 2461..... 3
	TOTAL	16	MACH 2471..... 5
			TOTAL
			15



Program Information

The Anoka Technical College CNC Machinist diploma is a 50-credit program that prepares people for entry level positions to operate and perform offset changes and basic setups on the following equipment: manual lathes, drills, mills, grinders, CNC mills, CNC lathes, CNC wire EDM, and CNC sinker EDM, coordinate measuring machine, and CAD/CAM. They would also be skilled in the areas of blueprint reading, GD&T, statistical process control, lean manufacturing, math, inspection, and the correct sequence of operation required. Those employed in this position would be expected to operate and perform offset changes as well as basic setups on manual lathes, drills, mills, grinders, CNC mills, CNC lathes, CNC wire EDM and CNC sinker EDM, coordinate measuring machine, and CAD/CAM as well as invoke lean manufacturing process and practices.

Prerequisites

The 32-credit Machinist diploma program is a prerequisite for the CNC Machinist diploma program (see credits). Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The CNC Machinist diploma has credit transferability into the CNC Manufacturing Technology diploma and AAS program.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed to turn out a finished machine product and to switch readily from one kind of product to another. The machinist’s background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

Machinists working in this field are expected to setup and operate manual lathes, drills, mills and grinders. They should be able to inspect and produce parts to the desired dimensions under proper supervision.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Wages/Outlook/Advancement

Follow this link for a [Gainful Employment Report](#).

Technical Education: 18 Credits

CNC Machinist Diploma	18 credits
<input type="checkbox"/> MACH 2310 CNC II	3
<input type="checkbox"/> MACH 2320 CNC III	3
<input type="checkbox"/> MACH 2331 CAM I	1
<input type="checkbox"/> MACH 2340 CNC Programming II	2
<input type="checkbox"/> MACH 2351 Mold/Diemaking Theory	3
<input type="checkbox"/> MACH 2360 Fixture and Tooling	4
<input type="checkbox"/> MACH 2420 EDM Machining	2
Machinist Diploma.....	32 credits
<input type="checkbox"/> MACH 1100 Machine Technology I.....	7
<input type="checkbox"/> MACH 1121 Machine Technology 2	2
<input type="checkbox"/> MACH 1132 Blueprint Reading	3
<input type="checkbox"/> MACH 1140 CAD I.....	1
<input type="checkbox"/> MACH 1171 Math for Machinist I.....	3
<input type="checkbox"/> MACH 1200 Machine Technology III	3
<input type="checkbox"/> MACH 1220 Machine Technology IV	2
<input type="checkbox"/> MACH 1231 Blueprint Design/CAD II.....	1
<input type="checkbox"/> MACH 1240 Geometric Dimensioning & Tolerancing	3
<input type="checkbox"/> MACH 1250 CNC I.....	2
<input type="checkbox"/> MACH 1261 CNC Programming I.....	3
<input type="checkbox"/> MACH 1271 Math for Machinist II.....	2

Also see: CNC Design & Manufacturing Technology AAS, Advanced CNC Machine Technology diploma and Machinist diploma

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

Jerry Showalter	763-576-4043
Jesse Oldenburg	763-576-4065
Matt Rogers	763-576-4088
Brendon Paulson	763-576-4243

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

CNC Machinist

Diploma

Sample Program Sequence:

Full Time

	First Semester	Second Semester	Third Semester
1st YEAR	MACH 1100..... 7	MACH 1200..... 3	MACH 2310..... 3
	MACH 1121..... 2	MACH 1220..... 2	MACH 2320..... 3
	MACH 1132..... 3	MACH 1231..... 1	MACH 2331..... 1
	MACH 1140..... 1	MACH 1240..... 3	MACH 2340..... 2
	MACH 1171..... 3	MACH 1250..... 2	MACH 2351..... 3
	TOTAL..... 16	MACH 1261..... 3	MACH 2360..... 4
		MACH 1271..... 2	MACH 2420..... 2
		TOTAL..... 16	TOTAL..... 18

Program Information

The Anoka Technical College Machinist diploma is a 32-credit program that prepares people for entry level skills to setup and operate the following equipment; manual lathes, drill, mills, and grinders. They would also be skilled in the area of blueprint reading, geometrics, statistical process control, math, and inspection, and the correct sequence of operation required. Those working in this field would be expected to setup and operate manual lathes, drills, mills, and grinders. They should be able to inspect and produce parts to the desired dimensions, with proper supervision.

Machinist working in this field are expected to setup and operate manual lathes, drills, mills and grinders. They should be able to inspect and produce parts to the desired dimensions under proper supervision.

Prerequisites

The 32-credit Machinist diploma is a prerequisite for the CNC Machinist diploma program (see credits). Although no prior knowledge or experience is necessary to succeed in this program, a background in shop math and algebra, mechanical drafting, machine shop, and mechanical skills can be helpful.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Machinist diploma has credit transferability to the CNC Manufacturing Technology diploma and AAS degree programs.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed to turn out a finished machine product and to switch readily from one kind of product to another. The machinist’s background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Wages/Outlook/Advancement

Follow this link for a [Gainful Employment Report](#).

Technical Education: 32 Credits

<input type="checkbox"/> MACH 1100 Machine Technology I.....	7
<input type="checkbox"/> MACH 1121 Machine Technology 2	2
<input type="checkbox"/> MACH 1132 Blueprint Reading I.....	3
<input type="checkbox"/> MACH 1140 CAD I.....	1
<input type="checkbox"/> MACH 1171 Math for Machinist I.....	3
<input type="checkbox"/> MACH 1200 Machine Technology III	3
<input type="checkbox"/> MACH 1220 Machine Technology IV.....	2
<input type="checkbox"/> MACH 1231 Blueprint Design/CAD II.....	1
<input type="checkbox"/> MACH 1240 Geometric Dimensioning & Tolerancing	3
<input type="checkbox"/> MACH 1250 CNC I.....	2
<input type="checkbox"/> MACH 1261 CNC Programming I.....	3
<input type="checkbox"/> MACH 1271 Math for Machinist II.....	2

Also see: CNC Design & Manufacturing Technology AAS, Advanced CNC Machine Technology diploma, CNC Machinist diploma and Machinist diploma

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

Jerry Showalter	763-576-4043
Jesse Oldenburg	763-576-4065
Matt Rogers	763-576-4088
Brendon Paulson	763-576-4243

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Machinist

Diploma

Sample Program Sequence:

Full Time

1 st YEAR	Fall Semester	Spring Semester
	MACH 1100..... 7	MACH 1200..... 3
MACH 1121..... 2	MACH 1220..... 2	
MACH 1132..... 3	MACH 1231..... 1	
MACH 1140..... 1	MACH 1240..... 3	
MACH 1171..... 3	MACH 1250..... 2	
TOTAL 16	MACH 1261..... 3	
	MACH 1271..... 2	
	TOTAL 16	

Program Information

The Anoka Technical College Multi-Axis Machining advanced certificate is a nine-credit program advanced certification that prepares students in the understanding of multi-axis programming and the art of machining.

Multi-Axis Machining program graduates are skilled in the areas of multi-axis principles of programming and machining, and cycle time reduction.

Graduates also gain a deeper insight into the knowledge needed to create complex three-dimensional (3-D) shapes and five-sided machining. This increases the machining operations to be performed in one setup, reducing handling and machines necessary to complete the job. With more companies utilizing lean manufacturing, the use of multi-axis machining technology continues to grow.

Prerequisites

This is an advanced certificate requires an evaluation exam through the Machine Trades Department.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed to turn out a finished machine product and to switch readily from one kind of product to another. The machinist’s background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 9 Credits

- MACH 2510 Multi Axis CNC Programming..... 4
- MACH 2520 Multi Axis CNC Machining 5

Also see: CNC Design & Manufacturing Technology AAS, Advanced CNC Machine Technology diploma, CNC Machinist diploma and Machinist diploma

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Jerry Showalter](#) 763-576-4043
[Jesse Oldenburg](#) 763-576-4065
[Matt Rogers](#)..... 763-576-4088
[Brendon Paulson](#) 763-576-4243

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College CAD Drafter diploma is a 58-credit program that consists of technical courses designed to develop skills in mechanical drafting, design and related fields.

In addition to drafting and detailing skills, the student receives training in related areas such as industrial materials, manufacturing methods, machining and industrial relations. Students also receive hands-on training in Anoka Technical College's computer-aided drafting (AutoCAD, Inventor, ProE/Creo and Solidworks) lab.

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective students should have a high school diploma or GED A background in algebra/trigonometry, drafting, metalworking or computers can be helpful. Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The CAD Drafting diploma program has credit transferability to the Mechanical Drafting and Design Technology AAS degree and diploma programs.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Mechanical Drafting and Design Technology program graduates find employment with manufacturing companies, big and small, engineering firms, electro-mechanical companies and contract firms.

Mechanical Drafting and Design Technology graduates have the necessary knowledge and an excellent foundation to begin their careers as mechanical drafters in engineering departments that design and manufacture hard goods products of every description. Most mechanical drafters begin as detail drafters, making the drawings required for the manufacture of products. Mechanical drafters can advance to supervisory positions within the department or may advance to assistant engineer as they gain experience. Other areas of advancement include purchasing and sales.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 51 Credits

<input type="checkbox"/>	MATH 1070 Technical Mathematics I.....	3
<input type="checkbox"/>	MATH 1080 Technical Mathematics II.....	2
<input type="checkbox"/>	MACH 1090 Machining Fundamentals.....	2
<input type="checkbox"/>	MECH 1200 Mechanical CAD I.....	4
<input type="checkbox"/>	MECH 1216 Drafting Standards.....	5
<input type="checkbox"/>	MECH 1228 Materials and Processes.....	4
<input type="checkbox"/>	MECH 1243 Descriptive Geometry and Applications.....	3
<input type="checkbox"/>	MECH 2010 Power Transmission Design.....	3
<input type="checkbox"/>	MECH 2031 Process Design Drafting.....	3
<input type="checkbox"/>	MECH 2045 Design Projects.....	4
<input type="checkbox"/>	MECH 2055 Geometric Dimensioning and Tolerancing.....	3
<input type="checkbox"/>	MECH 2064 Introduction to Inventor.....	4
<input type="checkbox"/>	MECH 2074 Solidworks.....	4
<input type="checkbox"/>	MECH 2084 Introduction to ProE/Creo.....	4
<input type="checkbox"/>	MECH 2090 Advanced CAD.....	3

General Education/MnTC Requirements: 7 Credits

Seven (7) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- | | | |
|--------------------------|--------------------------------------------|---|
| <input type="checkbox"/> | ENGL 1105 Composition I..... | 4 |
| <input type="checkbox"/> | SPCH 1200 Interpersonal Communication..... | 3 |

Also see: Mechanical CAD Drafting & Design AAS degree, Basic CAD Drafting certificate or Advanced CAD Drafting certificate

Start Dates

Fall Semester.....	August
Spring Semester.....	January (with instructor approval)

Faculty Contact

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017
CAD Drafter
Diploma

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	MECH 1200 4	MACH 1090 2
	MECH 1216 5	MATH 1070 3
	MECH 2064 4	MATH 1080 2
	TOTAL 13	MECH 1228 4
		MECH 2074 4
	TOTAL 15	
2nd YEAR	Fall Semester	Spring Semester
	MECH 2031 3	MECH 1243 3
	MECH 2045 4	MECH 2010 3
	MECH 2084 4	MECH 2055 3
	TOTAL 15	MECH 2090 3
	TOTAL 12	

**Does NOT include all required general education/MnTC credits.*



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Mechanical Drafting & Design Technology is a 69-credit program that consists of technical courses designed to develop skills in mechanical drafting, design and related fields.

In addition to drafting and detailing skills, the student receives training in related areas such as industrial materials, manufacturing methods, machining and industrial relations.

Students also receive hands-on training in Anoka Technical College's computer-aided drafting (AutoCAD Inventor, ProE/creo and Solidworks) lab.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements. .

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Mechanical Drafting and Design Technology program graduates find employment with manufacturing companies, big and small, engineering firms, electro-mechanical companies and contract firms.

Mechanical Drafting and Design Technology graduates have the necessary knowledge and an excellent foundation to begin their careers as mechanical drafters in engineering departments that design and manufacture hard goods products of every description.

Most mechanical drafters begin as detail drafters, making the drawings required for the manufacture of products. Mechanical drafters can advance to supervisory positions within the department or may advance to assistant engineer as they gain experience. Other areas of advancement include purchasing and sales.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 54 Credits

<input type="checkbox"/>	MACH 1090 Machining Fundamentals.....	2
<input type="checkbox"/>	MATH 1070 Technical Mathematics I.....	3
<input type="checkbox"/>	MATH 1080 Technical Mathematics II.....	2
<input type="checkbox"/>	MECH 1200 Mechanical CAD I.....	4
<input type="checkbox"/>	MECH 1216 Drafting Standards.....	5
<input type="checkbox"/>	MECH 1228 Materials and Processes.....	4
<input type="checkbox"/>	MECH 1243 Descriptive Geometry and Applications.....	3
<input type="checkbox"/>	MECH 2010 Power Transmission Design.....	3
<input type="checkbox"/>	MECH 2031 Process Design Drafting.....	3
<input type="checkbox"/>	MECH 2045 Design Projects.....	4
<input type="checkbox"/>	MECH 2055 Geometric Dimensioning and Tolerancing.....	3
<input type="checkbox"/>	MECH 2064 Introduction to Inventor.....	4
<input type="checkbox"/>	MECH 2074 Solidworks.....	4
<input type="checkbox"/>	MECH 2084 Introduction to ProE/Creo.....	4
<input type="checkbox"/>	MECH 2080 Special Projects.....	3
<input type="checkbox"/>	MECH 2090 Advanced CAD.....	3

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits are required from the Minnesota Transfer Curriculum (MnTC).

<input type="checkbox"/>	ENGL 1105 Composition.....	4
<input type="checkbox"/>	SPCH 1500 Intercultural Communications.....	3
OR		
<input type="checkbox"/>	SPCH 1200 Interpersonal Communications.....	3
<input type="checkbox"/>	General Education/MnTC Courses.....	8

Also see: CAD Drafter diploma, Basic CAD Drafting certificate and Advanced CAD Drafting certificate

Start Dates

Fall Semester.....	August
Spring Semester.....	January (with instructor approval)

Faculty Contact

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

(continued)

2016-2017

Mechanical Drafting and Design

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

		Fall Semester	Spring Semester
1st YEAR		MECH 1200 4	MACH 1090 2
		MECH 1216 5	MATH 1070 3
		MECH 2064 4	MATH 1080 2
		MATH (if required) X	MECH 1228 4
		TOTAL 13	MECH 2074 4
			TOTAL 15
2nd YEAR		Fall Semester	Spring Semester
		MECH 2031 3	MECH 1243 3
		MECH 2045 4	MECH 2010 3
		MECH 2084 4	MECH 2055 3
		MnTC courses 4	MECH 2080 3
		TOTAL 15	MECH 2090 3
		TOTAL 15	

*Does NOT include all required general education/MnTC credits.



Program Information

The Anoka Technical College Basic CAD Drafting certificate is a 20-credit program that consists of technical courses designed to develop skills in mechanical drafting, design and related fields. In addition to drafting and detailing skills, the student receives training in related areas such as industrial materials, manufacturing methods, machining and industrial relations.

Students also receive hands-on training in Anoka Technical College's computer-aided drafting (AutoCAD, Inventor, ProE/Creo and Solidworks) lab.

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective students should have a high school diploma or GED. A background in algebra/trigonometry, drafting, metalworking or computers can be helpful.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Basic CAD Drafting certificate program has credit transferability to the Mechanical Drafting and Design Technology AAS degree and diploma programs.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Mechanical Drafting and Design Technology program graduates find employment with manufacturing companies, big and small, engineering firms, electro-mechanical companies and contract firms.

Mechanical Drafting and Design Technology graduates have the necessary knowledge and an excellent foundation to begin their careers as mechanical drafters in engineering departments that design and manufacture hard goods products of every description. Most mechanical drafters begin as detail drafters, making the drawings required for the manufacture of products.

Mechanical drafters can advance to supervisory positions within

the department or may advance to assistant engineer as they gain experience. Other areas of advancement include purchasing and sales

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 20 Credits

- MECH 1200 Mechanical CAD I 4
- MECH 1216 Drafting Standards 5
- MECH 1243 Descriptive Geometry and Applications 3
- MECH 2045 Design Projects 4

Possible Electives - Select 4 credits

- MECH 1090 Machining Fundamentals 2
- MECH 2064 Introduction to Inventor 4
- MECH 1228 Materials and Processes 4
- MECH 2055 Geometric Dimensioning and Tolerancing 3

Also see: Mechanical CAD Drafting and Design AAS degree, CAD Drafter diploma and Advanced CAD Drafting certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary (with instructor approval)

Faculty Contact

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1 st YEAR	MECH 1200 4	MECH 1243 3
	MECH 1216 5	MECH 2045 4
	*TOTAL 9	*TOTAL 7

**Although elective courses are required. They are not listed in the sequence above. Elective courses may be taken any semester and in any order.*



Program Information

The Anoka Technical College Advanced CAD certificate is a 30-credit program that consists of technical courses designed to develop skills in mechanical drafting, design, and related fields.

In addition to drafting and detailing skills, the student receives training in related areas, such as industrial materials, manufacturing methods, machining and industrial relations. Students also receive hands-on training in Anoka Technical College's computer-aided drafting (AutoCAD, Inventor, ProE/Creo and Solidworks) lab. Training in these programs opens up an entirely new area of job advancement, especially in large companies.

Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, prospective students should have a high school diploma or GED. A background in algebra/trigonometry, drafting, metalworking or computers can be helpful.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Advanced CAD Drafting certificate program has credit transferability to the Mechanical Drafting and Design Technology AAS degree and diploma programs.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Mechanical Drafting and Design Technology program graduates find employment with manufacturing companies, big and small, engineering firms, electro-mechanical companies and contract firms.

Mechanical Drafting and Design Technology graduates have the necessary knowledge and an excellent foundation to begin their careers as mechanical drafters in engineering departments that design and manufacture hard goods products of every description. Most mechanical drafters begin as detail drafters, making the drawings required for the manufacture of products. Mechanical

drafters can advance to supervisory positions within the department or may advance to assistant engineer as they gain experience. Other areas of advancement include purchasing and sales.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 30 Credits

- MECH 1200 Mechanical CAD I 4
- MECH 1216 Drafting Standards 5
- MECH 1243 Descriptive Geometry and Applications 3
- MECH 2031 Process Design Drafting 3
- MECH 2055 Geometric Dimensioning and Tolerancing 3
- MECH 2064 Introduction to Inventor 4
- MECH 2074 Solidworks 4

Possible Electives. Select 4 credits:

- MACH 1090 Machining Fundamentals 2
- MECH 1228 Materials and Processes 4
- MECH 2084 Introduction to ProE/Creo 4
- MECH 2090 Advanced CAD 3

Also see: Mechanical CAD Drafting & Design AAS degree, CAD Drafter diploma or Basic CAD Drafting certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary (with instructor approval)

Faculty Contact

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

		Fall Semester	Spring Semester	
1 st YEAR	MECH 1200	4	MECH 1243	3
	MECH 1216	5	MECH 2031	3
	MECH 2064	4	MECH 2055	3
	*TOTAL	9	MECH 2074	4
			*TOTAL	7



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Welding is a 66-credit program designed for individuals seeking a well rounded welding background. The degree program also offers a balance of general education courses to complement the welding courses and to provide students with opportunity to capitalize on a broad-based welding education.

The Welding program consists of technical courses, specifically designed to develop exceptional welding skills utilizing the major welding processes that are vital to industry.

The technical courses are broken out into semester-long certificates to provide quick access into a welding career.

Certification

The Welding program not only provides students with a thorough background in welding and related theory, but also prepares students with the knowledge and skills needed to take three national certification examinations:

- American Society of Mechanical Engineers;
- American Petroleum Institute; and
- American Welding Society's Welding Code

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world's oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and striving for excellence.

A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied

to the pieces that are being joined; melting and fusing them together which forms a permanent bond.

Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wages/Outlook/Advancement

Welders and solderers can advance to more skilled jobs with additional training and experience. For example, experienced welders may become technicians, supervisors, inspectors, or instructors. Other experienced welders and solderers open their own repair shops.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 51 Credits

Basic Welding Certificate	17
WELD 1002 Math for Welders	1
WELD 1004 Oxy-Fuel Applications	1
WELD 1006 Oxy-Fuel Processes	1
WELD 1008 Blueprint Reading I	2
WELD 1012 Processes and Power Sources I	3
WELD 1014 Gas Tungsten Arc Welding I	3
WELD 1016 Gas Metal Arc Welding I	3
WELD 1018 Shielded Metal Arc Welding I	3
Additional Credits for Welding Technology Diploma	17
WELD 1022 Blueprint Reading II	3
WELD 1024 Metals Theory I	2
WELD 1026 Processes and Power Source II	3
WELD 1028 Gas Tungsten Arc Welding II	3
WELD 1034 Gas Metal Arc Welding II	3
WELD 1036 Shielded Metal Arc Welding II	3
Fabricator Certificate	17
WELD 1209 Basic Pipe Welding	5
WELD 2000 Basic Pipe Layout	3
WELD 2004 Metals Theory II	3
WELD 2006 Welding Code Interpretation	2
WELD 2008 Blueprint Reading III	4

General Education: 15 Credits

Fifteen (15) general education credits of the Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

MATH1500 Mathematical Ideas	3
General Education/MnTC Electives	12

Also see: Welding Technology diploma, Basic Welding certificate, Fabricator certificate and Pipe Welding certificate



(continued)

2016-2017

Welding

Associate in Applied Science (AAS) Degree

Start Dates

Fall Semester.....August

Faculty Contact

[Jay Gerdin](#) 763-576-4055

[Rich Godeen](#) 763-576-4122

[Lisa Glendower](#) 763-576-4086

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	WELD 1002 1	WELD 1022 3
	WELD 1004 1	WELD 1024 2
	WELD 1006 1	WELD 1026 3
	WELD 1008 2	WELD 1028 3
	WELD 1012 3	WELD 1034 3
	WELD 1014 3	WELD 1036 3
	WELD 1016 3	TOTAL 17
	WELD 1018 3	
	TOTAL 17	
		Fall Semester
2nd YEAR	WELD 1209 5	MATH 1500 3
	WELD 2000 3	General Ed elective 12
	WELD 2004 3	TOTAL 15
	WELD 2006 2	
	WELD 2008 4	
TOTAL 17		



Program Information

The Anoka Technical College Welding Technology diploma is a 34-credit program (the 34 total credits include 17 credits from the Basic Welding certificate) specifically designed to develop exceptional welding skills utilizing the major welding processes that are vital to industry.

The Welding Technology diploma integrates theory with technical skills. Through the rigorous curriculum students will develop fundamental knowledge of GMAW, GTAW, SMAW and Oxy fuel welding processes. Blueprint and math ability are incorporated in the coursework. Students will also learn metal comprehension, industry safety practices and related equipment applications.

Certification

The Welding program not only provides students with a thorough background in welding and related theory, but also prepares students with the knowledge and skills needed to take the national certification examination:

- American Welding Society’s Welding Code

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world’s oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and striving for excellence.

A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied

to the pieces that are being joined; melting and fusing them together which forms a permanent bond.

Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wages/Outlook/Advancement

Welders and solderers can advance to more skilled jobs with additional training and experience. For example, experienced welders may become technicians, supervisors, inspectors, or instructors. Other experienced welders and solderers open their own repair shops.

Wage information is available from the Minnesota Department of Education and [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 34 Credits

Basic Welding Certificate17 Credits

- WELD 1002 Math for Welders 1
- WELD 1004 Oxy-Fuel Applications..... 1
- WELD 1006 Oxy-Fuel Processes 1
- WELD 1008 Blueprint Reading I..... 2
- WELD 1012 Processes and Power Sources I..... 3
- WELD 1014 Gas Tungsten Arc Welding I 3
- WELD 1016 Gas Metal Arc Welding I 3
- WELD 1018 Shielded Metal Arc Welding I..... 3

Additional Credits Required for Diploma17 Credits

- WELD 1022 Blueprint Reading II 3
- WELD 1024 Metals Theory I..... 2
- WELD 1026 Processes and Power Sources II 3
- WELD 1028 Gas Tungsten Arc Welding 3
- WELD 1034 Gas Metal Arc Welding II..... 3
- WELD 1036 Shielded Metal Arc Welding II 3

Also see: Welding AAS degree, Basic Welding certificate, Fabricator certificate and Pipe Welding certificate

Start Dates

Fall Semester.....August

Faculty Contact

- [Jay Gerdin](#) 763-576-4055
- [Rich Godeen](#)..... 763-576-4122
- [Lisa Glendower](#)..... 763-576-4086

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Welding Technology

Diploma

Sample Program Sequence:

Full Time

1 st YEAR	Fall Semester	Spring Semester
	WELD 1002 1	WELD 1022 3
WELD 1004 1	WELD 1024 2	
WELD 1006 1	WELD 1026 3	
WELD 1008 2	WELD 1028 3	
WELD 1012 3	WELD 1034 3	
WELD 1014 3	WELD 1036 3	
WELD 1016 3	TOTAL 17	
WELD 1018 3		
TOTAL 17		

Program Information

The Anoka Technical College Basic Welding certificate is a 17-credit program designed for individuals seeking a well-rounded foundation in welding. The Basic Welding certificate is designed for individuals who want quick access into the welding careers.

Classes available at Anoka Technical College and Cambridge-Isanti High School.

Prerequisites

None.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world's oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and striving for excellence.

A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied to the pieces that are being joined; melting and fusing them together which forms a permanent bond.

Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 17 Credits

- WELD 1002 Math for Welders 1
- WELD 1004 Oxy-Fuel Applications 1
- WELD 1006 Oxy-Fuel Processes 1
- WELD 1008 Blueprint Reading I 2
- WELD 1012 Processes and Power Sources I 3
- WELD 1014 Gas Tungsten Arc Welding I 3
- WELD 1016 Gas Metal Arc Welding I 3
- WELD 1018 Shielded Metal Arc Welding I 3

Also see: Welding AAS degree, Welding Technology diploma, Fabricator certificate and Pipe Welding certificate

Start Dates

Fall Semester.....August

Faculty Contact

- [Jay Gerdin](#) 763-576-4055
- [Rich Godeen](#)..... 763-576-4122
- [Lisa Glendower](#)..... 763-576-4086

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

The Basic Welding certificate is designed to be completed in one semester.

Fall Semester	
1 st YEAR	WELD 1002 1
	WELD 1004 1
	WELD 1006 1
	WELD 1008 2
	WELD 1012 3
	WELD 1014 3
	WELD 1016 3
	WELD 1018 3
	TOTAL 17



Program Information

The Anoka Technical College Fabricator certificate is 17-credit program offers individuals the opportunity to develop skills necessary for construction, manufacturing, building, and fabrication for real weldments. Students entering this certificate program have good welding ability, but seek greater applications skills.

Certifications

The Welding program not only provides students with a thorough background in welding and related theory, but also prepares students with the knowledge and skills need to take three national certification examinations:

- American Society of Mechanical Engineers
- American Petroleum Institute
- American Welding Society’s Welding Code

Prerequisites

Must complete the Welding Technology diploma. Please see advisor for more information.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The courses in the Fabricator certificate serves as the third semester courses in the AAS degree in Welding program.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world’s oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and striving for excellence.

A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied to the pieces that are being joined; melting and fusing them together which forms a permanent bond.

Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wages/Outlook/Advancement

Welders and solderers can advance to more skilled jobs with additional training and experience. For example, experienced welders may become technicians, supervisors, inspectors, or instructors. Other experienced welders and solderers open their own repair shops.

Wage information is available from the Minnesota Department of Education and [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 17 Credits

- WELD 1209 Basic Pipe Welding 3
- WELD 2000 Basic Pipe Layout 5
- WELD 2004 Metals Theory II 3
- WELD 2006 Welding Code Interpretation 2
- WELD 2008 Blueprint Reading III 4

Also see: Welding AAS degree, Welding Technology diploma, Basic Welding certificate and Pipe Welding certificate

Start Dates

Fall Semester.....August

Faculty Contact

- [Jay Gerdin](#) 763-576-4055
- [Rich Godeen](#)..... 763-576-4122
- [Lisa Glendower](#)..... 763-576-4086

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

The Fabricator certificate is designed to be completed in one semester.

1st YEAR	Fall Semester	
	WELD 1209	3
	WELD 2000	5
	WELD 2004	3
	WELD 2006	2
	WELD 2008	4
	TOTAL	17



Program Information

The Anoka Technical College offers a 17-credit Pipe Welding certification which is designed for individuals seeking the highest welding skill level, the most demanding manual welding discipline.

Graduates from the Pipe Welding certificate have the skills required to master manual pipe welding and obtain the highest paying jobs in welding.

Certifications

The Welding program not only provides students with a thorough background in welding and related theory, but also prepares students with the knowledge and skills need to take three national certification examinations:

- American Society of Mechanical Engineers
- American Petroleum Institute
- American Welding Society’s Welding Code

Prerequisites

Must complete Fabricator certificate. Please see advisor for more information.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The diversification of the welding industry impacts virtually every industry around the globe. From the depth of the world’s oceans to the far-reaching corners of outer space, there is a welding position for every hardworking, ambitious, smart individual who is ready and willing to constantly improve and striving for excellence.

A career choice in welding offers a vast array of options for employment and continuing personal development. Welding is the most common way to permanently join metal parts. Heat is applied to the pieces that are being joined; melting and fusing them together which forms a permanent bond.

Therefore, welding plays a key role in industry production lines, laboratories, research and development, national defense, sales and

service, NASCAR and drag racing, custom motorcycle building, artwork, sculptures, pipelines, power plants, refineries, construction, maintenance, repair and much more.

Wages/Outlook/Advancement

Welders and solderers can advance to more skilled jobs with additional training and experience. For example, experienced welders may become technicians, supervisors, inspectors, or instructors. Other experienced welders and solderers open their own repair shops.

Wage information is available from the Minnesota Department of Education and [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 17 Credits

- WELD 2012 GMAW 5G & 6G Pipe Welding 2
- WELD 2014 GTAW 5G & 6G Pipe Welding 5
- WELD 2016 SMAW 5G & 6G Pipe WeldingII 5
- WELD 2018 Blueprint Reading IV 5

Also see: Welding AAS degree, Welding Technology diploma, Fabricator certificate and Basic Welding certificate

Start Dates

Fall Semester.....August

Faculty Contact

- [Jay Gerdin](#) 763-576-4055
- [Rich Godeen](#)..... 763-576-4122
- [Lisa Glendower](#)..... 763-576-4086

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

The Pipe Welding certificate is designed to be completed in one semester.

1st YEAR	First Semester	
	WELD 2012	2
	WELD 2014	5
	WELD 2016	5
	WELD 2018	5
	TOTAL	17



The image features a dynamic, abstract background composed of several sharp, overlapping rays or bands of color. On the left side, there are dark grey and black rays. Moving right, there are bright yellow and light green rays. The right side of the image is dominated by a solid, vibrant green color. A white, trapezoidal shape is positioned in the upper right quadrant, containing the main title text.

Golf Course Management & Landscape Technology

Golf Course Grounds Management

Associate in Applied Science (AAS) Degree

Technical Requirements 54
 General Education/MnTC 15
 Total Credits 69

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Golf Course Grounds Management is a 69-credit program that prepares students for employment in the golf course and grounds management industries as golf course superintendents/assistant superintendents, grounds supervisors/assistant supervisors and turf technicians.

The program includes coursework in plant and soil science, turfgrass science and management, water management, golf course grounds site construction, turf power equipment and golf course grounds site maintenance.

Complementary coursework is offered in communications, computer applications and customer service. Golf Course Grounds Management program graduates manage the landscape and turf environment for golf courses, parks, commercial and residential sites, athletic complexes, and municipalities.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Golf Course Grounds Management program develops skills in turfgrass care, crew supervision and management, fertilizer and pesticide application.

Program graduates may find employment in a variety of settings, including golf courses, athletic facilities and industrial grounds maintenance.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 54 Credits

Core51 Credits

- HORT 1015 Soil Science and Fertility 4
- HORT 1030 Plant Pests I 3
- HORT 1045 Plant Pests II 4
- HORT 1050 Woody Plant Materials I 3
- HORT 1060 Woody Plant Materials II 3
- TURF 1210 Turfgrass and Grounds Management 3
- TURF 1220 Introduction to Turfgrass Species 3
- TURF 1230 Landscape Construction 3
- TURF 1240 Turfgrass Diseases 2
- TURF 1250 Golf Course Construction and Design 3
- TURF 1255 Turf Power and Equipment I 2
- TURF 1260 Turf Power and Equipment II 3
- TURF 1270 Supervised Occupational Experience 6
- TURF 1280 Golf Course Planning and Operations 3
- TURF 1300 Irrigation Installation and Design 3
- TURF 1515 Supervised Occupational Experience 3

Technical Electives3 Credits

Select three credits of electives from the following list:

- HORT 1230 Environmental Gardens 3
- LNSC 1233 Introduction to Landscape and Horticulture 3
- LNSC 1260 Landscape Design CAD 3
- TURF 1310 Sports Turf Management 3

Please see your advisor for more elective options.

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- NSCI1020 Plant Science 3
- General Education/MnTC Courses 12

Also see: *Golf Course Grounds Management diploma or Grounds Maintenance Technician certificate*

Start Dates

- Fall Semester August
- Spring Semester January

Faculty Contact

Amy Moberg 763-576-4004

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Golf Course Grounds Management

Associate in Applied Science (AAS) Degree

Sample Program Sequence

Full Time

	Fall Semester	Spring Semester
1st YEAR	HORT 1030 3	HORT 1015 4
	HORT 1050 3	HORT 1045 4
	NSCI 1020 3	TURF 1220 3
	TURF 1210 3	TURF 1270 6
	TOTAL 12	TOTAL 17
2nd YEAR	Fall Semester	Spring Semester
	TURF 1240 2	HORT 1060 3
	TURF 1250 3	TURF 1230 3
	TURF 1260 3	TURF 1255 2
	TURF 1300 3	TURF 1280 3
	TURF 1515 3	Technical Elective 3
TOTAL 14	TOTAL 14	

Program Information

The Anoka Technical College Golf Course Grounds Management diploma is a 67-credit program that prepares students for employment in the golf course and grounds management industries as golf course superintendents/assistant superintendents, grounds supervisors/assistant supervisors and turf technicians.

The program includes coursework in plant and soil science, turfgrass science and management, water management, golf course grounds site construction, turf power equipment and golf course grounds site maintenance.

Complementary coursework is offered in communications, computer applications and customer service. Golf Course Grounds Management program graduates manage the landscape and turf environment for golf courses, parks, commercial and residential sites, athletic complexes, and municipalities.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Golf Course Grounds Management program develops skills in turfgrass care, crew supervision and management, fertilizer and pesticide application.

Program graduates may find employment in a variety of settings, including golf courses, athletic facilities and industrial grounds maintenance.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	HORT 1015	Soil Science and Fertility.....	4
<input type="checkbox"/>	HORT 1030	Plant Pests I.....	3
<input type="checkbox"/>	HORT 1045	Plant Pests II.....	4
<input type="checkbox"/>	HORT 1050	Woody Plant Materials I.....	3
<input type="checkbox"/>	HORT 1060	Woody Plant Materials II.....	3
<input type="checkbox"/>	TURF 1210	Turfgrass and Grounds Management.....	3
<input type="checkbox"/>	TURF 1220	Introduction to Turfgrass Species.....	3
<input type="checkbox"/>	TURF 1230	Landscape Construction.....	3
<input type="checkbox"/>	TURF 1240	Turfgrass Diseases.....	2
<input type="checkbox"/>	TURF 1250	Golf Course Construction and Design.....	3
<input type="checkbox"/>	TURF 1255	Turf Power and Equipment I.....	2
<input type="checkbox"/>	TURF 1260	Turf Power and Equipment II.....	3
<input type="checkbox"/>	TURF 1270	Supervised Occupational Experience.....	6
<input type="checkbox"/>	TURF 1280	Golf Course Planning and Operations.....	3
<input type="checkbox"/>	TURF 1300	Irrigation Installation and Design.....	3
<input type="checkbox"/>	TURF 1515	Supervised Occupational Experience.....	3

Technical Electives 6 Credits

Six credits of electives are required from the following list:

<input type="checkbox"/>	HORT 1230	Environmental Gardens.....	3
<input type="checkbox"/>	LNSC 1233	Introduction to Landscape and Horticulture.....	3
<input type="checkbox"/>	LNSC 1260	Landscape Design CAD.....	3
<input type="checkbox"/>	TURF 1310	Sports Turf Management.....	3

Please see your advisor for more elective options.

General Education/MnTC Requirements: 10 Credits

Ten general education credits of Minnesota Transfer Curriculum (MnTC) are required. Students are required to take:

<input type="checkbox"/>	NSCI 1020	Plant Science.....	3
<input type="checkbox"/>	General Education/MnTC Courses.....		7

Also see: Golf Course Grounds Management AAS or Golf Course Grounds Technician certificate

Start Dates

Fall Semester.....	August
Spring Semester.....	January

Faculty Contact

[Amy Moberg](#)..... 763-576-4004

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Golf Course Grounds Management

Diploma

Sample Program Sequence

Full Time

		Fall Semester	Spring Semester	
1st YEAR	HORT 1030	3	HORT 1015	4
	HORT 1050	3	HORT 1045	4
	NSCI 1020	3	TURF 1220	3
	TURF 1210	3	TURF 1270	6
	TOTAL	12	TOTAL	17
			Fall Semester	Spring Semester
2nd YEAR	TURF 1240	2	HORT 1060	3
	TURF 1250	3	TURF 1230	3
	TURF 1260	3	TURF 1255	2
	TURF 1300	3	TURF 1280	3
	TURF 1515	3	Technical Elective	3
	Technical Elective	3	TOTAL	14
	TOTAL	17		



Program Information

The Anoka Technical College Golf Course Grounds Technician certificate is a 29-credit program that prepares individuals for employment in the golf course and grounds management industries as golf course superintendents/assistant superintendents, grounds supervisors/assistant supervisors, and turf technicians. These individuals manage the landscape and turf environment for golf courses, parks, commercial and residential sites, athletic complexes, and municipalities. This program includes coursework in plant and soil science, turfgrass science and management, water management, golf course grounds site construction, turf power equipment and golf course grounds site maintenance.

Prerequisites

None.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Golf Course Grounds Management program develops skills in turfgrass care, crew supervision and management, fertilizer and pesticide application. Program graduates may find employment in a variety of settings, including golf courses, athletic facilities and industrial grounds maintenance.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 25 Credits

Core 16 Credits

- HORT 1030 Plant Pests I 3
- HORT 1045 Plant Pests II 4
- HORT 1050 Woody Plant Materials I 3
- TURF 1270 Supervised Occupational Experience 6

Technical Electives9 Credits

Select nine total credits from the following courses:

- TURF 1210 Turfgrass and Grounds Management 3
- TURF 1220 Introduction to Turfgrass Species 3
- TURF 1255 Turf Power and Equipment I 2
- TURF 1260 Turf Power and Equipment II 3
- TURF 1310 Sports Turf Management 3

Please see your advisor for more elective options.

General Education/MnTC Requirements: 4 Credits

Four general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- NSCI 1020 Plant Science 3
- General Education/MnTC Courses 1

Also see: Golf Course Grounds Management AAS or Grounds Maintenance Technician diploma

Start Dates

- Fall Semester August
- Spring Semester January

Faculty Contact

[Amy Moberg](#) 763-576-4004

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1 st YEAR	HORT 1030 3	HORT 1045 4
	HORT 1050 3	TURF 1270 6
	NSCI 1020 3	General Education/MnTC.. 1
	Technical Electives..... 6	Technical Electives..... 3
	TOTAL 15	TOTAL 14



Program Information

The Anoka Technical College Landscape Technology Associate in Applied Science (AAS) degree is a 72-credit program designed to prepare individuals for employment in the landscape industries as landscape construction technicians, landscape construction supervisors, plant production technicians or plant production supervisors.

Landscape employees construct and install plantings and landscape components for commercial and residential sites. Plant production employees produce and maintain plant materials for the landscape industry.

The program includes coursework in plant and soil science, landscape installation and maintenance, retaining wall design and construction, surface design and construction, deck design and construction, landscape power equipment, and nursery production practices. Complementary coursework is offered in communications, computer applications, and customer service.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Graduates of the Landscape Technology program may find employment in a variety of settings, including garden centers, landscape installations and grounds maintenance. This training will develop the student's skills in landscape installation and construction, crew supervision and management, propagation and production of plants, sales of

plant materials and supplies, operation and care of equipment, turf and plant management, specialty gardening and arboriculture.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 57 Credits

<input type="checkbox"/>	HORT 1015	Soil Science and Fertility	4
<input type="checkbox"/>	HORT 1030	Plant Pests I.....	3
<input type="checkbox"/>	HORT 1045	Plant Pests II	4
<input type="checkbox"/>	HORT 1050	Woody Plant Materials I	3
<input type="checkbox"/>	HORT 1060	Woody Plant Materials II.....	3
<input type="checkbox"/>	HORT 1210	Greenhouse Operations	4
<input type="checkbox"/>	HORT 1230	Environmental Gardens	3
<input type="checkbox"/>	LNSC 1213	Specialty Landscapes.....	3
<input type="checkbox"/>	LNSC 1223	Sustainable Landscapes	3
<input type="checkbox"/>	LNSC 1233	Introduction to Landscape Horticulture.....	3
<input type="checkbox"/>	LNSC 1240	Plant Production.....	4
<input type="checkbox"/>	LNSC 1250	Retaining Wall and Surface Design Construction	3
<input type="checkbox"/>	LNSC 1260	Landscape Design CAD	3
<input type="checkbox"/>	LNSC 1270	Supervised Occupational Experience	6
<input type="checkbox"/>	LNSC 1273	Supervised Occupational Experience	2
<i>Select six (6) credits of electives from the following list:</i>			
<input type="checkbox"/>	HORT 1310	Specialty Horticulture Crops	3
<input type="checkbox"/>	TURF 1240	Turfgrass Diseases	2
<input type="checkbox"/>	TURF 1300	Irrigation Installation and Design	3
<input type="checkbox"/>	TURF 1310	Sports Turf Management	3

Please see your advisor for more elective options.

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	NSCI 1020	Plant Science.....	3
<input type="checkbox"/>	General Education/MnTC Courses.....		12

Also see: Landscape Technology diploma and certificate

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

[Amy Moberg](mailto:Amy.Moberg@anokatech.edu) 763-576-4004

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Landscape Technology

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	HORT 1030 3	HORT 1015 4
	HORT 1050 3	HORT 1210 4
	LNSC 1233 3	LNSC 1223 3
	LNSC 1250 3	LNSC 1270 6
	TOTAL 12	TOTAL 17
2nd YEAR	Fall Semester	Spring Semester
	HORT 1230 3	HORT 1045 4
	LNSC 1213 3	HORT 1060 3
	LNSC 1240 4	LNSC 1260 3
	NSCI 1020 3	LNSC 1273 2
	Technical Elective 3	Technical Elective 3
TOTAL 16	TOTAL 15	

Program Information

The Anoka Technical College Landscaping Technology diploma is a 57-credit program designed to prepare individuals for employment in the landscape industries as landscape construction technicians, landscape construction supervisors, plant production technicians or plant production supervisors. Landscape employees construct and install plantings and landscape components for commercial and residential sites. Plant production employees produce and maintain plant materials for the landscape industry.

The program includes coursework in plant and soil science, landscape installation and maintenance, retaining wall design and construction, surface design and construction, deck design and construction, landscape power equipment, and nursery production practices. Complementary coursework is offered in communications, computer applications, and customer service.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Landscape Technology program graduates may find employment in a variety of settings, including garden centers, landscape installations and grounds maintenance.

The program develops the students’ skills in landscape installation and construction, crew supervision and management, propagation and production of plants, sales of plant materials and supplies, operation and care of equipment, turf and plant management, specialty gardening and arboriculture.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 54 Credits

<input type="checkbox"/>	HORT 1015	Soil Science and Fertility	4
<input type="checkbox"/>	HORT 1030	Plant Pests I.....	3
<input type="checkbox"/>	HORT 1045	Plant Pests II	4
<input type="checkbox"/>	HORT 1050	Woody Plant Materials I	3
<input type="checkbox"/>	HORT 1060	Woody Plant Materials I	3
<input type="checkbox"/>	HORT 1210	Greenhouse Operations.....	4
<input type="checkbox"/>	HORT 1230	Environmental Gardens	3
<input type="checkbox"/>	LNSC 1213	Specialty Landscapes.....	3
<input type="checkbox"/>	LNSC 1223	Sustainable Landscapes	3
<input type="checkbox"/>	LNSC 1233	Introduction to Landscape Horticulture.....	3
<input type="checkbox"/>	LNSC 1240	Plant Production.....	4
<input type="checkbox"/>	LNSC 1250	Retaining Wall and Surface Design Construction	3
<input type="checkbox"/>	LNSC 1260	Landscape Design CAD	3
<input type="checkbox"/>	LNSC 1270	Supervised Occupational Experience	6
<input type="checkbox"/>	LNSC 1273	Supervised Occupational Experience	2

Three (3) credits of electives are required from the following:

<input type="checkbox"/>	HORT 1310	Specialty Horticulture Crops	3
<input type="checkbox"/>	TURF 1220	Introduction to Turfgrass Species	3
<input type="checkbox"/>	TURF 1255	Turf Power and Equipment I	2
<input type="checkbox"/>	TURF 1300	Irrigation Installation and Design	3

Please see your advisor for more elective options.

General Education/MnTC Requirements: 3 Credits

Ten general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	NSCI 1020	Plant Science,.....	3
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Also see: Landscape Technology AAS or Landscape Technology certificate

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

Amy Moberg.....	763-576-4004
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For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Landscape Technology

Diploma

Sample Program Sequence

Full Time

	Fall Semester	Spring Semester
1 st YEAR	HORT 1030 3	HORT 1210 4
	HORT 1050 3	HORT 1015 4
	LNSC 1233 3	LNSC 1223 3
	LNSC 1250 3	LNSC 1270 6
	TOTAL 12	TOTAL 17
	2 nd YEAR	Fall Semester	Spring Semester
HORT 1230 3		HORT 1045 4
LNSC 1213 3		HORT 1060 3
LNSC 1240 4		HORT 1310 3
NSCI 1020 3		LNSC 1260 3
TOTAL 13		LNSC 1273 2
	TOTAL 15	

Program Information

The Anoka Technical College Landscape Technology certificate is a 29-credit program designed to prepare individuals for employment in the landscape industries as landscape construction technicians, landscape construction supervisors, plant production technicians or plant production supervisors. Landscape employees construct and install plantings and landscape components for commercial and residential sites. Plant production employees produce and maintain plant materials for the landscape industry.

The program includes coursework in plant and soil science, landscape installation and maintenance, retaining wall design and construction, surface design and construction, deck design and construction, landscape power equipment, and nursery production practices. Complementary coursework is offered in communications, computer applications, and customer service.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Golf Course Grounds Management program has articulated partnerships with two four-year institutions:

- The University of Minnesota-Crookston campus for a Bachelor of Science (BS) degree in Golf Facilities and Turf Systems Management
- Suny Cobleskill in New York for a Bachelor of Technology degree in Golf Turf Management

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Landscape Technology program graduates may find employment in a variety of settings, including garden centers, landscape installations and grounds maintenance.

The program develops the students’ skills in landscape installation and construction, crew supervision and management, propagation and production of plants, sales of plant materials and supplies, operation and care of equipment, turf and plant management, specialty gardening and arboriculture.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 25 credits

- HORT 1030 Plant Pests I..... 3
 - HORT 1045 Plant Pests II 4
 - HORT 1050 Woody Plant Materials I 3
 - LNSC 1270 Supervised Occupational Experience 6
- Nine (9) credits of electives are required from the following list:*
- Hardscape Emphasis*
- LNSC 1213 Specialty Landscapes..... 3
 - LNSC 1223 Sustainable Landscapes 3
 - LNSC 1250 Retaining Wall and Surface Design Construction 3
 - LNSC 1260 Landscape Design CAD 3
- Plant Production Emphasis*
- HORT 1210 Greenhouse Operations..... 4
 - LNSC 1240 Plant Production..... 4

General Education/MnTC Requirements: 4 credits

Four general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- NSCI 1020 Plant Science..... 3
- General Education/MnTCU Courses..... 1

Also see: Landscape Technology AAS degree and Landscape Technology diploma

Start Dates

Fall Semester.....August
 Spring SemesterJanuary

Faculty Contact

[Amy Moberg](#) 763-576-4004

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	HORT 1030 3	HORT 1045 4
	HORT 1050 3	LNSC 1270 6
	NSCI 1020 3	General Education/MnTC.. 1
	Technical Electives..... 6	Technical Electives..... 3
	TOTAL 15	TOTAL 14



The image features a dynamic, abstract composition. On the left side, several sharp, overlapping triangular shapes in shades of black, grey, yellow, and light blue point towards the center. A prominent, dark red banner extends horizontally across the upper right portion of the image. The background is a gradient of red, transitioning from a lighter shade at the top to a darker shade at the bottom. The overall aesthetic is modern and technological.

Health Science Technology

Program Information

The Anoka Technical College Emergency Medical Services (EMS) certificate is a 9-credit program designed to prepare students for gainful employment in the field of EMS or to transition to further their EMS education.

Prerequisites

None.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility licensed by the Minnesota Department of Health; have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate at a clinical site. The student has the right to request reconsideration of the disqualification. For consideration to continue in the program the student must request reconsideration and provide a copy of such request. The student is responsible for requesting the commissioner to reconsider the disqualification. The college will withdraw any student who is disqualified by the Minnesota Department of Health.

Accreditation/Certifications

The EMS program follows the National Highway Traffic Safety Administration curriculum and is approved by the State of Minnesota Emergency Medical Services Regulatory Board (EMSRB).

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Emergency Medical Technicians (EMTs) are found in many career areas across the nation and beyond. Emergency Medical Services (EMS) hire encompasses all of those that respond to emergency situations. EMTs are entry-level EMS providers capable of performing lifesaving interventions within their defined scope of practice.

Wages/Outlook/Advancement

Partnerships between the college and the emergency health care industries further enhance the knowledge and skills of our students. With advanced training, students become more marketable as emergency providers in the emergency healthcare field. Education as an emergency medical responder (EMR), emergency medical technician (EMT) or an advanced emergency medical technician (AEMT) can lead to a satisfying and fulfilling profession in the emergency medical system and enhances many careers throughout our nation's workforce.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 9 Credits

- EMED 1112 Emergency Medical Technician 9

Start Dates

Fall Semester..... August
Spring Semester January

Faculty Contact

[Brad Wright](#)..... 763-576-4058

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

		First Semester	
1 st YEAR	EMED 1112	9	
	TOTAL	9	

Program Information

The Anoka Technical College Emergency Medical Services (EMS) certificate is a 19-credit program designed to prepare students for gainful employment in the field of EMS or to transition to further their EMS education.

Prerequisites

None.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility licensed by the Minnesota Department of Health; have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate at a clinical site. The student has the right to request reconsideration of the disqualification. For consideration to continue in the program the student must request reconsideration and provide a copy of such request. The student is responsible for requesting the commissioner to reconsider the disqualification. The college will withdraw any student who is disqualified by the Minnesota Department of Health.

Accreditation/Certifications

The EMS program follows the National Highway Traffic Safety Administration curriculum and is approved by the State of Minnesota Emergency Medical Services Regulatory Board (EMSRB).

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Emergency Medical Technicians (EMTs) are found in many career areas across the nation and beyond. Emergency Medical Services (EMS) hire encompasses all of those that respond to emergency situations. EMTs are entry-level EMS providers capable of performing lifesaving interventions within their defined scope of practice.

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Wages/Outlook/Advancement

Partnerships between the college and the emergency health care industries further enhance the knowledge and skills of our students. With advanced training, students become more marketable as emergency providers in the emergency healthcare field. Education as an emergency medical responder (EMR), emergency medical technician (EMT) or an advanced emergency medical technician (AEMT) can lead to a satisfying and fulfilling profession in the emergency medical system and enhances many careers throughout our nation's workforce.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 16 Credits

- EMED 1112 Emergency Medical Technician 9
- EMED 1120 ECG Recognition and Treatment for EMS 1
- EMED 1125 EMS Operations 2
- EMED 1130 ALS Clinical 2
- EMED 1135 Basic EMS Pharmacology 1
- HLTH 1010 Medical Terminology 1

General Education/MnTC Requirements: 3 Credits

Student may select ONE course from the following Goal Areas:

- Goal Area 1: Speech
- Goal Area 2: Biology
- Goal Area 5: Psychology

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Brad Wright](#) 763-576-4058

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

First Semester

1st YEAR	EMED 1112 9
	EMED 1120 1
	EMED 1125 2
	EMED 1130 2
	EMED 1135 1
	HLTH 1010 1
	MnTC 3
	TOTAL 19



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Health Information Technology is a 60-credit program that prepares students for a career in health care and settings where health information is utilized. A student graduating with a degree in Health Information Technology is well prepared to assume an entry-level position in this professional field. Specifically, program outcomes are designed to assure that graduates of the program will be prepared to demonstrate: essential professional and technical knowledge, skills and competencies fundamental to the health information management profession; effective written and oral communication skills; skills in using resources and technology; problem solving, teamwork and critical thinking skills.

Accreditation

The Health Information Technology degree program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIM). Only graduates of a program accredited by CAHIM are eligible to sit for the Registered Health Information Technician (RHIT) exam.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct contact with patients as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. The College will withdraw any student who is disqualified by the Minnesota Department of Health. The student is responsible for requesting the Commissioner to reconsider the disqualification.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Health Information Management (HIM) professional is an important connection between doctors, patients, insurance providers, and other healthcare professionals within the field. By maintaining, collecting, and analyzing health information, the HIM professional makes an important behind the scenes contribution to the delivery of quality care. Besides working with cutting-edge technology, HIM professionals are experts in the field of patient health information and health records.

Health information technicians ensure the quality of health information by: verifying health records completeness and accuracy and proper entry into computer systems. Utilizing computer applications to assemble and analyze patient data Coding diagnoses and procedures for reimbursement and research Compiling and maintaining registry data Maintaining quality control of health records Assuring patient privacy and data security.

Wages/Outlook/Advancement

The U.S. Department of Labor Statistics, in its Occupational Outlook Handbook, projects that employment for health information technicians is expected to grow much faster than the average. Credentialed health information technicians (RHITs) can look forward to many expanding career opportunities due to increasing patient privacy/data security legislation and computerization of health information.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

<input type="checkbox"/>	ADSC 1246	HIT Professional Practice Experience II	..... 2
<input type="checkbox"/>	ADSC 1252	Professional Practice for Coding Specialist	..... 3
<input type="checkbox"/>	HITM 1221	Intro to Health Information Management	..... 3
<input type="checkbox"/>	HITM 1240	CPT Coding	..... 3
<input type="checkbox"/>	HITM 1244	Law and Ethics	..... 2
<input type="checkbox"/>	HITM 1325	Quality & Performance Improvement in Healthcare	..... 3
<input type="checkbox"/>	HITM 1110	Medical Terminology in Health Information	..... 3
<input type="checkbox"/>	HITM 1120	HIT Practicum I	..... 3
<input type="checkbox"/>	HITM 1130	ICD-10-CM Coding	..... 3
<input type="checkbox"/>	HITM 1200	Billing and Reimbursement	..... 2
<input type="checkbox"/>	HITM 1210	Supervision of Health Information	..... 3
<input type="checkbox"/>	HITM 1230	ICD-10-PCS Coding	..... 3
<input type="checkbox"/>	HITM 2240	Computerized Health Information	..... 3
<input type="checkbox"/>	HITM 2245	Health Care Statistic and Data Registries	..... 3
<input type="checkbox"/>	HLTH 1000	Disease Conditions	..... 2
<input type="checkbox"/>	HLTH 1005	Anatomy & Physiology	..... 4

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	BIOL 1106	Introduction to Biology	..... 4
<input type="checkbox"/>	INTS 1000	Critical Thinking Applications for College	..... 3



(continued)

2016-2017

Health Information Technology

Associate in Applied Science (AAS) Degree

Choose ONE transferable course from TWO of these categories:

English Choose one transferable course 3 or 4

SPEECH Choose one transferable course 3 or 4

OR

PSYCHOLOGY 3 or 4

Also see: Medical Coding diploma

Start Dates

Fall Semester August

Spring Semester January

Faculty Contact

[Georgina Sampson](#) 763-576-4042

[Jody Sandberg](#) 763-576-4066

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	HITM 1221 3	HITM 1110 3
	HITM 1130 3	HITM 1120 3
	HITM 1230 3	HITM 1200 2
	HITM 1244 2	HITM 1240 3
	HLTH 1000 2	HLTH 1005 4
	INTS 1000 3	TOTAL 15
	TOTAL 15	
	Third Semester	Fourth Semester
2nd YEAR	ADSC 1252 3	ADSC 1246 2
	BIOL 1106 4	HITM 1210 3
	Gen Ed/MnTC 8	HITM 1325 3
	TOTAL 16	HITM 2240 3
		HITM 2245 3
	TOTAL 14	



Program Information

The Anoka Technical College Health Technology certificate is a 26-credit program that provides students with skills to secure an entry-level position in the health care field (nursing assistant, phlebotomist, and home health aide) or allow students to engage in coursework that will transfer into the different health programs.

Prerequisites

Some courses may require an Accuplacer score or completing basic math, basic English, and/or reading courses with a “C” or better.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. Anoka Tech will withdraw any student from the program who is disqualified by the Minnesota Department of Health. The student is responsible for requesting the Commissioner to reconsider the disqualification.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

According to the Minnesota Department of Education and the Minnesota Department of Employment and Economic Development, people in entry-level health care careers are people who tend to:

- Consider relationships important. They like to work in a friendly, non-competitive environment. They like to do things for other people. They prefer jobs where they are not pressured to do things that go against their sense of right and wrong.
- Consider good working conditions important. They like jobs offering steady employment and good pay. They want employment that fits their individual work style. They may

prefer doing a variety of tasks, working alone, or being busy all the time.

- Have social interests. They like work activities that assist others and promote learning and personal development. They like to communicate with others: to teach, give advice, help, or otherwise be of service to others.
- Have realistic interests. They like work activities that include practical, hands-on problems and solutions. They like to work with plants, animals, and physical materials such as wood, tools, and machinery. They often prefer to work outside.

Employers look for entry-level health care personnel who like to help people and do not mind hard work. Employees must be responsible, compassionate, emotionally stable, and cheerful. They also need to be tactful, honest, and discreet about patients’ private lives.

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 19 Credits

Must complete one of the following courses:

- HLTH 1030 Medication Administration for Unlicensed Personnel 3
- HLTH 1103 Nursing Assistant/Home Health Aide 5
- HBHL 1802 Phlebotomy (100 hours)
- HBHL 1802 a non-credit course and therefore is ineligible for financial aid and cannot be used toward the 26 credits required for graduation.

Select 9 credits from the following:

- HLTH 1000 Disease Conditions 2
- HLTH 1005 Anatomy & Physiology 4
- HLTH 1030 Medication Administration for Unlicensed Personnel 3
- HLTH 1040 Medical Terminology 2
- HLTH 1103 Nursing Assistant/Home Health Aide 5

Select 10 credits from the following:

- ADSC 1055 Electronic Health Records..... 2
- BIOL 1106 Introduction to Biology 4
- BIOL 2100 Anatomy & Physiology I 4
- BIOL 2200 Anatomy & Physiology II 4
- COMP 1000 Introduction to Computers 3
- COMP 1002 Computer Technologies for Communication 2
- EMED 1076 BLS for the Healthcare Provider..... 1
- MATH 1010 Dosage Calculations for Health Care Professionals 1
- PSYC 1405 Lifespan Development 4
- PSYC 1505 General Psychology 4

General Education/MnTC Requirements: 7 Credits

Seven general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL 1105 Composition I 4
- The remaining three credits may be selected from the following:
- SPCH 1120 Public Speaking 3
 - SPCH 1200 Interpersonal Communications 3
 - SPCH 1500 Intercultural Communications 3

Also see: all programs in Health Science Technology career field



(continued)

2016-2017

Health Technology

Certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Cathy Bishop](#)..... 763-576-4009
[Sara Rowe](#)..... 763-576-4127
[Teresa Dill](#)..... 763-576-4136

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Medical Administrative Specialist is a 60-credit program that prepares students with the broad range of technical and communications skills needed for success in today’s office work environment with specific study in medical terminology, electronic health records software, and office bookkeeping.

Medical office procedures course work includes learning practice management software to include setting patients’ appointments, maintaining physicians’ calendars, billing and messaging as well as specific interpersonal communications skills necessary in a medical setting. Students gain competence in word processing, spreadsheet, database and presentation software. Keyboarding speed and accuracy is developed while grammar, punctuation and writing skills are polished. Students are well prepared for employment in any medical office environment.

Prerequisites

See Credits:

^[A] The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

A documented keyboarding skill of 45 net words per minute on a 5-minute timing is required for graduation from this program.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

In this fast-growing health care field, the medical administrative assistant functions in physicians’ offices, health clinics, outpatient facilities, medical laboratories, hospitals, health insurance companies, medical supplies and equipment businesses, and pharmaceutical companies. Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health

have a background study conducted by the state.

Job duties/skills may include the following: transcribing medical documents/reports, composing and processing correspondence, accounting payments and posting charges, coding of diagnoses and procedures, processing insurance claims, coordinating patient care, scheduling patient appointments, recording and relaying messages, maintaining various financial records, maintaining patient files, making calls for physicians and other healthcare personnel, arranging hospital admissions, scheduling surgeries, using automated record system to access, enter and edit patient information, and arranging physicians’ meetings and conferences.

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

- ADSC 1003 Introduction to Keyboarding and Speedbuilding 2
- ADSC 1010 Keyboarding I ^[A] 3
- ADSC 1031 Business English Skills 3
- ADSC 1042 Applied Medical Terminology for Scribing 2
- ADSC 1045 Administrative Office Procedures 4
- ADSC 1054 Office Bookkeeping 4
- ADSC 1055 Electronic Health Records 2
- ADSC 1142 Integrated Software Applications 4
- ADSC 1162 Microsoft PowerPoint 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1196 Microsoft Word 4
- ADSC 1206 Written Business Communications 4
- ADSC 1283 Medical Office Procedures 4
- ADSC 1451 Technology Tools for the Workplace 3
- HLTH 1040 Medical Terminology 2

General Education/MnTC Requirements: 15 Credits

Fifteen [15] general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- INTS 1000 Critical Thinking Applications for College 3
- Choose 12 transferable credits from THREE different MnTC goal areas

Also see: Medical Coding diploma, Medical Scribe certificate, Medical Receptionist diploma

Start Dates

Fall Semester August
Spring Semester January



(continued)

2016-2017

Medical Administrative Specialist

Associate in Applied Science (AAS) Degree

Faculty Contact

[Darla Cullen](#) 763-576-4018
[Deb Catlett](#) 763-576-4025

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	ADSC 1003 2	ADSC 1010 3
	ADSC 1031 3	ADSC 1206 4
	ADSC 1054 4	ADSC 1451 3
	ADSC 1196 4	HLTH 1040 2
	TOTAL 16	Gen Ed/MnTC 4
	TOTAL 16	
	Third Semester	Fourth Semester
2nd YEAR	ADSC 1045 4	ADSC 1042 2
	ADSC 1055 2	ADSC 1142 4
	ADSC 1162 2	ADSC 1283 4
	ADSC 1171 2	Gen Ed/MnTC 4
	Gen Ed/MnTC 4	TOTAL 14
	TOTAL 14	

Although the general education courses are listed in the sequence above, the courses may be taken any semester and in any order.



Program Information

The Anoka Technical College Medical Assistant Associate in Applied Science (AAS) is a 60-credit program that prepares individuals, under the supervision of physicians, to provide medical office administrative services and perform clinical duties including patient intake and care, routine diagnostic and recording procedures, pre-examination and examination assistance, and the administrative of medications and first aid.

The program includes instruction in basic anatomy and physiology; medical terminology; medical law and ethics; patient psychology and communications; medical office procedures; and clinical diagnostic, examination, testing and treatment procedures.

Program Rational

The Medical Assistant faculty believes that learning is a dynamic method facilitated by role modeling and surrounding students in a series of simulated classroom, clinical and laboratory settings. The Medical Assistant program offers full and part-time classes. The student is placed in a medical clinic for uncompensated, practical on the job experience. The 320-hour externship is supervised by clinical staff.

Program Outcomes

This profession is the only allied health specifically trained to work in ambulatory health settings. Medical assistants are multi-skilled employees, competent to perform administrative, clinical and laboratory procedures within the supervising physician's scope of practice consistent with medical assisting education, training and experience.

Upon successful completion of program requirements, graduates will be able to:

1. Perform scheduling of admission, appointments and tests.
2. Organize medical records.
3. Apply administrative policies and procedures effectively.
4. Demonstrate competent written and medical terminology skills.
5. Demonstrate handling and disposing of medical waste.
6. Apply principles and safety for laboratory procedures.
7. Demonstrate efficient interpersonal skills with patients, medical personal and co-workers.
8. Adapt methods and techniques to individual needs/capabilities of patients.
9. Demonstrate professionalism with the legal and ethical boundaries of the medical assisting profession.
10. Demonstrate safety and emergency practice in health care surroundings.
11. Perform vital signs, exam room preparation, patient data collection, documentation, billing, medical transcription, medical and surgical asepsis, dressing changes, catheterization, injections, drug administration, nutrition, electrocardiograms, venipunctures, capillary punctures, hematology, urinalysis and kit testing.
12. Demonstrate responsibility within the scope of practice of a medical assistant.

Program Goals

- Prepare competent entry-level medical assistants in cognitive (knowledge) psychomotor (skills) and affective (behavior) learning domains.
- Become an employer of choice.
- Help students and communities live and learn well.
- Foster an environment of critical thinking, effective communication, personal responsibility and initiative.

Program Externship Requirements

Students entering into the externship must have immunizations such as Hepatitis B, MMR, Varicella and Tdap. Also, must be current in First Aid/BLS CPR through the American Heart Association for Healthcare Providers. See Medical Assistant Handbook or advisor for further information.

Accreditation/Certification

The Medical Assistant program is nationally accredited by the Commission on Accreditation of Allied Health Programs (CAAHEP): 25400 U.S. Highway 19 North, Ste 158, Clearwater, FL 33756; 727-210-2350; www.caahep.org. Graduates can take the National Certification Examination to become certified with the American Association of Medical Assistants (AAMA).

Prerequisites

Score of 81 or higher on the Arithmetic portion of the Accuplacer test taken within the past two years OR score of 22 or higher on the Mathematics subject area of the ACT test taken within the past two years OR Anoka Technical College MATH 0801 with a grade of "B" or better within the past two years

Score of 86 or higher on the Sentence Skills portion of the Accuplacer test taken within the past three years OR score of 18 or higher on the English subject area of the ACT test taken within the past three years OR Anoka Technical College ENGL 0101 with a grade of "C" or better within the past three years.

Score of 78 or higher on the Reading Comprehension portion of the Accuplacer test taken within the past three years OR score of 21 or higher on the reading subject area of the ACT test taken within the past three years OR Anoka Technical College READ 0900 with a grade of "C" or better within the past three years.

Background Studies

Minnesota Law requires any person with direct patient and resident contact at a health care facility licensed by the Minnesota Department of Health (MDH) to have a background study conducted by the state. An individual disqualified from direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. Anoka Technical College will withdraw any student from the Medical Assistant program who is disqualified by the MDH. The student is then responsible for requesting the commissioner to reconsider the disqualification.

Medical Assistant

Associate in Applied Science (AAS) Degree

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

A medical assistant is eligible to work in clinics, urgent care/express care/minute clinics, blood collection centers, research facilities and insurance companies. Duties could include administering injections, and blood pressure readings, rooming patients, drawing blood, performing commonly ordered laboratory tests and electrocardiograms (EKG), insurance coding, medical records and scheduling patients for special procedures or other medical appointment.

Medical assistants have direct patient contact and work closely with physicians, nurses and other health care professionals. The ability to demonstrate professionalism, communicates effectively, multi-task, and perform procedures quickly and accurately is essential for success.

Advancement typically requires more training and certification. Many medical assistants choose to become nurses or other health care workers through further study. Administrative positions provide another popular career path because an administrative medical assistant can rise to the position of office manager without additional education.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

<input type="checkbox"/>	ADSC 1055	Electronic Health Records	2
<input type="checkbox"/>	EMED 1076	BLS for the Health Care Provider.....	1
<input type="checkbox"/>	HLTH 1000	Disease Conditions	2
<input type="checkbox"/>	HLTH 1005	Anatomy and Physiology.....	4
<input type="checkbox"/>	HLTH 1040	Medical Terminology.....	2
<input type="checkbox"/>	MAST 1200	Medical Assistant Seminar	2
<input type="checkbox"/>	MAST 1300	Medical Administrative I.....	2
<input type="checkbox"/>	MAST 1400	Pharmacology I.....	2
<input type="checkbox"/>	MAST 1500	EKG	1
<input type="checkbox"/>	MAST 1600	Laboratory I	4
<input type="checkbox"/>	MAST 1700	Clinical Procedures I.....	3
<input type="checkbox"/>	MAST 2300	Medical Administrative II.....	2

<input type="checkbox"/>	MAST 2400	Pharmacology II.....	2
<input type="checkbox"/>	MAST 2600	Laboratory II.....	4
<input type="checkbox"/>	MAST 2700	Clinical Procedures II	3
<input type="checkbox"/>	MAST 2900	Externship.....	7
<input type="checkbox"/>	MATH 1020	Math for Health Care	2

Courses with MAST prefix are restricted to students admitted to the Medical Assistant program. All required core coursework must be successfully completed before participating in the externship.

General Education: 15 Credits

Fifteen general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

<input type="checkbox"/>	BIOL 1106	Introduction to Biology.....	4
<input type="checkbox"/>	ENGL 1105	Composition I	4
OR			
<input type="checkbox"/>	ENGL 2105	Business and Technical Writing.....	4
<input type="checkbox"/>	PSYC 1405	Lifespan Development.....	4
OR			
<input type="checkbox"/>	PSYC 1505	General Psychology	4
<input type="checkbox"/>	SPCH 1120	Public Speaking	3
OR			
<input type="checkbox"/>	SPCH 1200	Interpersonal Communication	3

Start Dates

Fall Semester.....	August
Spring Semester	January

Faculty Contact

Lisa Sailor	763-576-4084
Stacy Wanovich	763-576-4132
Deb Lehev	763-576-4026

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	***Fall Semester	***Spring Semester	***Summer Semester
1 st YEAR	*ENGL 1105/21054	MAST 1200.....2	*PSYC 1405/15054
	HLTH 1000.....2	MAST 1300.....2	ADSC 1055.....2
	HLTH 1005.....4	MAST 1500.....1	TOTAL.....6
	HLTH 1040.....2	MAST 1600.....4	
	MATH 1020.....2	MAST 1700.....3	
	*SPCH 1120/12003	MAST 2300.....2	
TOTAL.....17	TOTAL.....14		
2 nd YEAR	***Fall Semester	***Spring Semester	
	*BIOL 1106.....4	**MAST 2900.....7	
	EMED 1076.....1	TOTAL.....7	
	MAST 1400.....2		
	MAST 2400.....2		
	MAST 2600.....4		
MAST 2700.....3			
TOTAL.....16			

*May be completed ahead of required semester plan.
 **All required course work must be successfully completed before participating in the externship.



Program Information

The Anoka Technical College Medical Coding Specialist diploma program is a 41-credit program that prepares students to assume an entry-level position as a medical coder in an acute care hospital, clinic or physician's office health care setting.

Program outcomes are designed to assure that graduates of the program will be prepared to demonstrate: essential professional and technical knowledge, skills and competencies fundamental to the medical coding profession; effective written and oral communication skills; skills in using resources and technology; problem solving, teamwork and critical thinking skills.

Accreditation

The Medical Coding Specialist diploma can prepare students to sit for the national certification examination to become a Certified Coding Associate (CCA) or the Certified Procedural Coding-Apprentice (CPC-A) credentials.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state. An individual who is disqualified from having direct contact with patients as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. The College will withdraw any student who is disqualified by the Minnesota Department of Health. The student is responsible for requesting the Commissioner to reconsider the disqualification.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Graduates of the Medical Coding Specialist diploma program will:

1. Analyze medical record documentation in order to assign diagnostic and procedures codes.
2. Provide important information for the health care reimbursement process.
3. Assist in medical research and statistics.

Medical coding specialists analyze health record documentation in order to assign and/or ensure that valid codes are applied to medical diagnoses and procedures to facilitate reimbursement, analysis of patient outcomes and statistics. The coding specialist must have a thorough understanding of the content of the health record in order to be able to locate information to support or provide specificity for coding.

Therefore, coding specialists receive training in the anatomy and physiology of the human body and disease processes in order to understand the etiology, pathology, symptoms, signs, diagnostic studies, treatment modalities, and prognosis of diseases and procedures to be coded.

Wages/Outlook/Advancement

The U.S. Department of Labor Statistics, in its Occupational Outlook Handbook, projects that employment for health information technicians is expected to grow much faster than the average.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for [Gainful Employment Report](#)

Technical Education: 32 Credits

- ADSC 1003 Introduction to Keyboarding & Skillbuilding..... 2
- ADSC 1252 Professional Practice for Coding Specialist 3
- HITM 1221 Intro to Health Information Management..... 3
- HITM 1240 CPT Coding 3
- HITM 1244 Law and Ethics 2
- HITM 1110 Medical Terminology in Health Information..... 3
- HITM 1130 ICD 10-CM Coding 3
- HITM 1200 Billing and Reimbursement 2
- HITM 1230 ICD 10-PCS Coding 3
- HITM 1250 Advanced Coding 2
- HLTH 1000 Disease Conditions 2
- HLTH 1005 Anatomy and Physiology 4

General Education/MnTC Requirements: 9 Credits

Nine (9) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- INTS 1000 Critical Thinking Applications for College 3
- Choose SIX transferable credits from these categories:
- English Choose one transferable course..... 3 or 4



(continued)

2016-2017

Medical Coding Specialist

Diploma

SPEECH Choose one transferable course 3 or 4

Also see: Health Information Technology AAS, Medical Administrative AAS, Medical Administrative diploma, or Medical Scribe certification

Start Dates

Fall Semester.....August

Spring SemesterJanuary

Faculty Contact

[Georgina Sampson](#) 763-576-4042

[Jody Sandberg](#) 763-576-4066

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	HITM 1221 3	HITM 1110..... 3
	HITM 1130 3	HITM 1200..... 2
	HITM 1230 3	HITM 1240..... 3
	HLTH 1000..... 2	HITM 1244..... 2
	INTS 1000 3	HLTH 1005..... 4
	TOTAL 14	TOTAL 14
2nd YEAR	Third Semester	
	ADSC 1003 2	
	ADSC 1252 3	
	HITM 1250 2	
	Gen Ed/MnTC 6	
	TOTAL 13	



Program Information

The Anoka Technical College Medical Receptionist diploma is a 45-credit program that prepares students with the broad range of technical and communications skills needed for success in today’s office work environment with specific study in medical terminology, electronic health records software, and office bookkeeping.

Medical office procedures course work includes learning practice management software to include setting patients’ appointments, maintaining physicians’ calendars, billing, and messaging as well as specific interpersonal communications skills necessary in a medical setting. Students will gain competence in word processing, spreadsheet, database, and presentation software. Keyboarding speed and accuracy is developed while grammar, punctuation, and writing skills are polished. Students are well prepared for employment in any medical office environment.

Prerequisites

See Credits:

[A] The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Some courses may require a keyboarding test out.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

A documented keyboarding skill of 45 net words per minute on a 5-minute timing is required for graduation from this program.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

In this fast-growing health care field, the medical administrative assistant functions in physicians’ offices, health clinics, outpatient facilities, medical laboratories, hospitals, health insurance companies, medical supplies and equipment businesses, and pharmaceutical companies. Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health

have a background study conducted by the state. Job duties/skills may include the following: transcribing medical documents/reports, composing and processing correspondence, accounting payments and posting charges, coding of diagnoses and procedures, processing insurance claims, coordinating patient care, scheduling patient appointments, recording and relaying messages, maintaining various financial records, maintaining patient files, making calls for physicians and other healthcare personnel, arranging hospital admissions, scheduling surgeries, using automated record system to access, enter and edit patient information, and arranging physicians’ meetings and conferences.

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health have a background study conducted by the state.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 42 Credits

- ADSC 1003 Introduction to Keyboarding and Speedbuilding 3
- ADSC 1010 Keyboarding I [A] 3
- ADSC 1031 Business English Skills 3
- ADSC 1042 Applied Medical Terminology for Scribing 2
- ADSC 1045 Administrative Office Procedures 4
- ADSC 1054 Office Bookkeeping 4
- ADSC 1055 Electronic Health Records 2
- ADSC 1142 Integrated Software Applications 4
- ADSC 1162 Microsoft PowerPoint 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1196 Microsoft Word 4
- ADSC 1206 Written Business Communications 4
- ADSC 1283 Medical Office Procedures 4
- HLTH 1040 Medical Terminology 2

General Education/MnTC Requirements: 3 Credits

Three [3] general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- INTS 1000 Critical Thinking Applications for College 3
- Also see: Medical Administrative Specialist AAS degree, Medical Coding Specialist diploma and Medical Scribe Specialist certificate*

Start Dates

Fall Semester August
Spring Semester January



(continued)

2016-2017

Medical Receptionist

Dipolma

Faculty Contact

[Darla Cullen](#) 763-576-4018
[Deb Catlett](#) 763-576-4025

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	ADSC 1003 2	ADSC 1010 3
	ADSC 1031 3	ADSC 1042 2
	ADSC 1054 4	ADSC 1206 4
	ADSC 1162 2	ADSC 1283 4
	HLTH 1040 2	TOTAL 13
	INTS 1000 3	
	TOTAL 16	
2nd YEAR	Third Semester	
	ADSC 1045 4	
	ADSC 1055 2	
	ADSC 1142 4	
	ADSC 1171 2	
	ADSC 1196 4	
TOTAL 16		



Program Information

The Anoka Technical College Medical Scribe Specialist certificate is a 30-credit program prepares student to perform real-time recording of patient-doctor interaction at the point of service and input of other physician-communicated information into the electronic health record while under the constant supervision of the medical provider. This program includes curriculum that teaches the skills required to entry-level employment as a medical scribe, which includes medical terminology, anatomy, electronic health records software, medical records documentation, privacy and ethics standards, diagnosis and procedure coding, and healthcare reimbursement practices.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Some courses may required a keyboarding test out.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Program Goals

1. Graduates will demonstrate the ability to accurately and thoroughly document medical visits and procedures as they are being performed by the physician.
2. Graduates will demonstrate proficiency in keyboarding speed and accuracy.
3. Graduates will demonstrate an understanding of medical terminology, anatomy, diagnostic procedures, pharmacology, and treatment assessments to the extent required to understand and accurately scribe doctor-patient encounters in real-time.
4. Graduates will demonstrate the ability to translate medical abbreviations into their expanded forms.
5. Graduates will demonstrate the ability to be able to use all functions of the electronic health records software.
6. Graduates will have a thorough knowledge of and understand the significance of complying with the Health Insurance Portability and Accountability Act (HIPPA) when accessing or communicating patient information.
7. Graduates will demonstrate professionalism in all communications.

Industry Information

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Industry Information

The mandatory implementation of the electronic health record has created this specific job in the health care industry. Providing this type of education preparation prepares students for employment at the forefront of the growth and changes that are happening in the health care industry as it adapts to changes cause by technology. Scribes free up the physicians’ time from clerical entry into the electronic health record which increases their productivity. The physician’s increase in productivity then increases revenue for the hospital/clinic/practice. From the quality of life perspective, scribes allow physicians to focus on quality patient care instead of the demands of paperwork, documentation and record keeping. This is a STEM career.

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 30 Credits

- ADSC 1003 Introduction to Keyboarding and Speedbuilding. 2
- ADSC 1025 Keyboarding Skillbuilding 2
- ADSC 1042 Applied Medical Terminology for Scribing..... 2
- ADSC 1055 Electronic Health Records 2
- ADSC 1283 Medical Office Procedures 4
- HITM 1030 Medical Coding for Scribing 3
- HITM 1110 Medical Terminology in Health Information 3
- HITM 1200 Billing and Rembursement 2
- HITM 1210 Supervision of Health Information 3
- HITM 1221 Intro to Health Information Management 3
- HITM 1244 Law and Ethics 2
- HLTH 1050 Body Structures 2

Also see: Health Information Technology (HIT) AAS, Medical Coding Specialist diploma, Medical Administrative Specialist AAS and Medical Receptionist diploma

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Darla Cullen](#)..... 763-576-4018

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Medical Scribe Specialist

Certificate

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ADSC 1003 2	ADSC 1025 2
	ADSC 1055 2	ADSC 1042 2
	HITM 1110 3	HITM 1200 2
	HITM 1030 3	ADSC 1283 4
	HLTH 1050 2	HITM 1210 3
	HITM 1221 3	HITM 1244 2
	TOTAL 15	TOTAL 15

Program Information

The Anoka Technical College Nursing Assistant/Home Health Aide certificate is a five-credit course that introduces concepts of basic human needs, basic nursing and personal care skills, mental health and social needs, restorative services, resident’s rights, and home health. The skills are performed in a supervised laboratory and long term care clinical setting. The course meets the requirements of the federal government and the Minnesota Board of Nursing. Upon completion of the competency evaluation, students can be employed in a long-term care facility, hospital or home health agency.

Prerequisites

None.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and residents at a health care facility licensed by the Minnesota Department of Health; have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate in a clinical placement in a Minnesota licensed health care facility. The college will withdraw any student who is disqualified by the Minnesota Department of Health. The student is responsible for requesting the Commissioner to reconsider the disqualification.

Registration Process

Please register online.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Books and Supplies

- Nursing assistant book and skills packet available through the Anoka Technical College bookstore.
- Student photo ID card.
- Black uniforms for the clinical training sites.
- Watch with a second hand and a box of non-latex exam gloves.

Reimbursable Expenses

Note from the Minnesota Department of Health regarding reimbursable expenses: Nursing assistants who pay for the cost of their training and testing prior to employment are eligible

for reimbursement. The nursing assistant has one (1) year from completion of the test to turn in receipts requesting reimbursement. The facility has 90 days to reimburse the nursing assistant. If the nursing assistant does not remain employed as a nursing assistant for 90 days, the nursing home is under no obligation to reimburse the nursing assistant. The first nursing home the nursing assistant stays at for at least 90 days would then be responsible to reimburse the nursing assistant if it has been one year or less since completion of the test. Only certified nursing homes or boarding care homes are required to reimburse a nursing assistant.

Industry Information

Upon completion of the competency evaluation, student can be employed in a long term care facility, hospital, home health agency or assisted living facility.

Technical Education: 5 Credits

HLTH 1103 Nursing Assistant/Home Health Aide..... 5
Also see: Health Technology Certificate

Start Dates

Fall Semester.....August
Spring SemesterJanuary
Summer SemesterMay

Faculty Contact

[Teresa Dill](mailto:Teresa.Dill@anokatech.edu)..... 763-576-4136

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Practical Nursing (PN) diploma is a 38-credit, full-time, two semester program. The Practical Nursing program continues to be approved by the Minnesota Board of Nursing and is specifically designed to train graduates for the specialized field of Licensed Practical Nursing (LPN).

Program graduates are educationally eligible to take the National Council Licensure Exam for Practical Nurses (NCLEX-PN) and, after passing and obtaining state licensure, may use the title LPN. After passing the PN exam, students are eligible to apply for licensure in all states (for specific state licensure requirements, contact the State Board of Nursing in that state).

Program Student Learning Outcomes

Consistent with the professional standards that define nursing practice, the outcomes of the Anoka Technical College program of learning is a graduate who is able to:

- Adhere to professional standards of practice within safe, legal, ethical and regulatory frameworks of the practical nurse (Professional concepts: Safety, Professional Identity and Behavior)
- Communicate effectively to deliver coordinated, interprofessional care through teamwork and collaboration (Professional concepts: Teamwork and Collaboration)
- Analyze holistic information to provide evidence-based patient care that continuously improves care processes (Professional concepts: Evidence-based Care, Quality Improvement)
- Demonstrate a caring and empathic approach while meeting patient's needs across the lifespan and wellness/illness continuum within a diverse community (Professional concept: Patient Relationship-centered Care)
- Participate in supporting patient care through the utilization of information technology within the practical nurse scope of practice (Professional concept: Informatics)

Accreditation

The Anoka Technical College Practical Nursing (PN) program is approved by the Minnesota Board of Nursing and is specifically designed to train graduates for the specialized field of Licensed Practical Nursing (LPN). The program is pursuing candidacy status by January 2018 with the Accreditation Commission for Education in Nursing (ACEN).

Prerequisites/Admission Guidelines

All required documentation must be submitted in person; Enrollment Services will be unable to receive them via mail, online or fax. Practical Nursing applications are reviewed at the time they are submitted for completeness. When all admission guidelines are satisfied, the applicant is accepted on a space available basis for the following semester.

- Apply to Anoka Technical College and be admitted to the college
- Complete the Nursing Assistant or Medical Assistant requirement
- Complete the CPR requirement

- Complete the Accuplacer Assessments and the Test of Essential Academic Skills (TEAS V or ATI TEAS)
- Complete the Student Record of Immunization document found under Forms on the Practical Nursing website
- Submit the Practical Nursing program Application (found under Forms) with documentation of each the above

Background Study

State law requires any person who provides services that involve direct contact with patients and/or residents at a health care facility have a background study conducted the MN Department of Human Services (DHS). A student who is disqualified as a result of a background check will not be allowed to enter the program major. A student must receive a "Background Study Clearance" within 90 days preceding the start of clinical or fieldwork courses to be placed at a partnering facility. Any student failing to receive clearance will be disqualified from enrollment in the course. Arrests, charges, or convictions of criminal offenses may cause a student to fail a background study. A disqualified student has the right to request reconsideration of the disqualification. It is the responsibility of the student to request consideration to the MN Department of Health Commissioner if he or she chooses to do so. An applicant is considered to be disqualified while in the reconsideration process.

Graduation Requirements

Refer to the Anoka Technical College Student Handbook.

Additionally:

1. Complete all of the required courses as outlined on the program plan with a C or better grade in each course and an A in MATH 1010.
2. Successfully complete all specified course student learning outcomes.
3. Have a copy of a current CPR card in the student file.
4. Successfully complete NCLEX-Practical Nursing success predictor test.
5. Maintain an acceptable background check from the Minnesota Department of Human Services.
6. Submit an application for graduation to Records/Registration.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Licensed practical nurses (LPN) specialize in delivering high-quality nursing care to patients in any stage of wellness or illness. Practical Nursing graduates work closely with physicians, registered nurses, and other health care professionals to deliver highly skilled, delegated



2016-2017

Practical Nursing

Diploma

technical medical and nursing care. The LPN is employed in hospitals, clinics, long-term care facilities, industrial health centers, schools, assisted living facilities, and private or group homes. The graduate may be delegated responsibility for nursing of childbearing families, adults/children who may need medical-surgical care, individuals with a mental illness, and individuals living in transitional/long-term care centers. The LPN is a dynamic, vital member of the health team and is legally responsible to practice practical nursing within the Minnesota Nurse Practice Act and the Minnesota Board of Nursing Rules.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 34 Credits

- HLTH 1005 Anatomy & Physiology 4
- MATH 1010 Dosage Calculations for Health Care Professionals 1
- NURS 1400 Foundations of Nursing 3
- NURS 1405 Foundations of Nursing Lab 2
- NURS 1410 Health Promotion Across the Lifespan I 4
- NURS 1420 Clinical Application I..... 2
- NURS 1500 Transition to Nursing Practice 2
- NURS 1510 Health Promotion Across the Lifespan II 5
- NURS 1515 Health Promotion Across the Lifespan II Lab 2
- NURS 1520 Clinical Application II 5
- NURS 1530 Psychosocial Nursing..... 2
- NURS 1540 Family Centered Nursing Care 1
- NURS 1545 Family Centered Nursing Care Clinical Application..... 1

General Education/MnTC Requirements: 4 Credits

Four (4) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL1105 Composition I 4

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Christina Wilson](#), Practical Nursing Director 763-576-4013

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	*ENGL 1105 4	NURS 1500..... 2
	HLTH 1005 4	NURS 1510 5
	MATH 1010 1	NURS 1515 2
	NURS 1400 3	NURS 1520 5
	NURS 1405 2	NURS 1530 2
	NURS 1410 4	NURS 1540 1
	NURS 1420 2	NURS 1545 1
	TOTAL 20	TOTAL 18

* ENGL 1105 MUST be taken prior to second semester.



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Occupational Therapy Assistant is a 71-credit program. Course work includes a combination of general education courses, occupational therapy theory and skill building courses, and on-the-job experiences at various fieldwork sites. Students must provide their own transportation to and from the fieldwork sites. All academic coursework must be completed before students are placed on their Level 2 fieldwork experience. The Level 2 fieldwork must be completed within 12 months of completing the required coursework. Enrollment in the fieldwork classes may be limited due to the availability of fieldwork sites.

Accreditation/Certification

The Occupational Therapy Assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449, phone 301-652-AOTA or 301-652-2682.

Graduates of the program are eligible to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of the exam, the individual is a Certified Occupational Therapy Assistant (COTA). Most states require licensure in order to practice. However, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate's ability to sit for the NBCOT certification exam or attain state licensure.

Prerequisites

All required documentation must be submitted in person; Enrollment Services will be unable to receive them via mail, online or fax.

1. Apply to Anoka Technical College and be admitted to the college
2. Complete the Accuplacer Assessments and the Test of Essential Academic Skills (TEAS V or ATI TEAS)

COTA 1000, Introduction to Occupational Therapy, is a pre-requisite for all other OTA program courses. All required coursework must be successfully completed before participating in Level 2 Fieldwork experiences.

Background Study

Minnesota state law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility have a background study conducted by the state. A student who is disqualified as a result of a background check will not be allowed to enter the program major. A student must receive a "Background Study Clearance" within 90 days preceding the start of clinical or fieldwork courses to be placed at a partnering facility. Any student failing to receive clearance will be disqualified from enrollment in the course. Arrests, charges, or convictions of criminal offenses may cause a student to fail a background study. If a student is disqualified, the student has the right to request reconsideration of the disqualification. It is the responsibility of the student to request consideration by the MN

Department of Health Commissioner if he or she chooses to do so. An applicant is considered to be disqualified while in the reconsideration process.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Young or old, we all have a job to do – the job of living. Learning, growing, playing, working, managing our homes, and caring for our families and ourselves are among the occupations of life.

Sometimes physical, emotional, or other challenges prevent people from participating fully in the job of living. Stroke, injury, depression, and developmental disabilities, for example, can make it difficult for people to do everyday tasks or be as active and as independent as they'd like. Occupational therapy – a vibrant, growing profession – makes it possible for people to regain independence and to enjoy life to its fullest. By choosing a career in occupational therapy, you will make a difference. You will improve the lives of children, young people, and adults alike. Occupational therapy assistants work with the supervision of registered occupational therapists to provide hands-on services to children and adults who are learning new ways to succeed in the occupations of life.

Students today can look forward to dynamic careers working in varied settings with people of all ages. Many practitioners help children thrive in the "occupations" of childhood learning, playing, and growing. Some work in schools with students who have learning disabilities or behavioral problems. Others work with children who have cerebral palsy, Down Syndrome, and other disabilities.

Practitioners also work with individuals in their homes, community centers, rehabilitation hospitals, and nursing homes. In these settings, they may support people with traumatic injuries, strokes, Alzheimer's disease, or mental health problems.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).



Occupational Therapy Assistant

Associate in Applied Science (AAS) Degree

Occupational therapy assistants may become occupational therapists. Assistants must get a master's degree to become a therapist.

Technical Education: 52 Credits

<input type="checkbox"/>	ADSC 1055	Electronic Health Records	2
<input type="checkbox"/>	COTA 1000	Introduction to Occupational Therapy	4
<input type="checkbox"/>	COTA 1100	Therapeutic Modalities I	3
<input type="checkbox"/>	COTA 1150	Therapeutic Modalities II	3
<input type="checkbox"/>	COTA 1220	Pediatric Principles & Techniques	4
<input type="checkbox"/>	COTA 1255	Physical Dysfunction Principles & Techniques I	3
<input type="checkbox"/>	COTA 1370	Special Topics in Occupational Therapy	2
<input type="checkbox"/>	COTA 2001	Organization & Administration of Activity Program	2
<input type="checkbox"/>	COTA 2010	Level 1 Fieldwork	2
<input type="checkbox"/>	COTA 2011	Fieldwork Seminar I	1
<input type="checkbox"/>	COTA 2205	Psychosocial Principles & Techniques	5
<input type="checkbox"/>	COTA 2255	Physical Dysfunction Principles & Techniques II	3
<input type="checkbox"/>	COTA 2410	Level 2 Fieldwork in Psychosocial Setting	6
<input type="checkbox"/>	COTA 2420	Level 2 Fieldwork in Rehab Setting	6
<input type="checkbox"/>	COTA 2450	Fieldwork Seminar II	1
<input type="checkbox"/>	HLTH 1005	Anatomy and Physiology	4
<input type="checkbox"/>	HLTH 1010	Medical Terminology	1

General Education/MnTC Requirements: 19 Credits

(MnTC) are required. Student is required to take:

<input type="checkbox"/>	ENGL 1105	Composition I	4
	<i>OR</i>		
<input type="checkbox"/>	ENGL 2105	English and Technical Writing	4
<input type="checkbox"/>	PSYC 1405	Lifespan Development	4
<input type="checkbox"/>	PSYC 1505	General Psychology	4
<input type="checkbox"/>	PSYC 1605	Abnormal Psychology	4
<input type="checkbox"/>	SPCH 1200	Interpersonal Communication	3
	<i>OR</i>		
<input type="checkbox"/>	SPCH 1500	Intercultural Communication	3
	<i>OR</i>		

^[1-4] See Sample Program Sequence for course prerequisites and notes.

Start Dates

Application process for the second year begins in March
Fall Semester.....August

Faculty Contact

Julie Grivna	763-576-4262
Lea Truchon	763-576-4106
Barbara Kloetzke	763-576-4017

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	Summer Semester
1st YEAR	COTA 1000.....4	COTA 1150.....3	ENGL 1105.....4
	COTA 1100.....3	COTA 1220.....4	OR ENGL 2105
	HLTH 1005.....4	COTA 1255.....3	ADSC 1055.....2
	HLTH 1010.....1	COTA 2001.....2	PSYC 1505.....4
	TOTAL.....12	PSYC 1405.....4	SPCH 1200.....3
	TOTAL.....16	OR SPCH 1500	TOTAL.....13
2nd YEAR	Fall Semester	Spring Semester	
	COTA 2010.....2	COTA 2410.....6	
	COTA 2011.....1	COTA 2420.....6	
	COTA 2205.....5	COTA 2450.....1	
	COTA 2255.....3	TOTAL.....13	
	COTA 1370.....2		
PSYC 1605.....4			
TOTAL.....17			

Although the general education courses are listed in the sequence above, the courses may be taken any semester and in any order.

COTA 1000, Introduction to Occupational Therapy, is a pre-requisite for all other OTA program courses. All required coursework must be successfully completed before participating in Level 2 Fieldwork experiences.

- ^[1] The prerequisite to this course is HLTH 1005, Anatomy and Physiology
- ^[2] The prerequisite to this course is PSYC 1605, Abnormal Psychology or taken concurrently
- ^[3] The prerequisite to this course is COTA 1220, Pediatric Principles & Techniques and COTA 1255, Physical Dysfunction Principles & Techniques I
- ^[4] Requires a current CPR for the Healthcare Worker Card



Program Information

The Anoka Technical College Sterile Processing certificate is a 24-credit program prepares graduates to work in medical facilities that prepare surgical instruments, supplies and equipment necessary for healthcare. This program includes a broad introduction to health sciences, as well as medical language, communication and computers. The program curriculum includes decontamination, preparation, packaging, sterilization, and sterile storage.

The Sterile Processing certificate is a prerequisite to the Surgical Technology Associate in Applied Science (AAS) degree. Please see Surgical Technology AAS for more information.

Prerequisites

*BIOL 1106 Introduction to Biology is a prerequisite to BIOL 2100 Anatomy & Physiology.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The work environment is dynamic and fast-paced. The work is challenging, highly technical, and complex. The performance of this vital department has a major impact on the smooth operation of the many departments to which it provides products and services. Employment opportunities may be within hospitals, outpatient centers, and instrument processing centers.

Wage/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 9 Credits

- COMP 1002 Computer Technologies for Communication..... 2
- HLTH 1040 Medical Terminology..... 2
- SURG 1003 Sterile Processing..... 3
- SURG 1005 Surgical Microbiology..... 2

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- BIOL 2100* Anatomy & Physiology I..... 4
- BIOL 2200 Anatomy & Physiology II..... 4
- PSYC 1505 General Psychology 4
- OR
- PSYC 1405 Lifespan Development 4
- SPCH 1200 Interpersonal Communications 3
- OR
- SPCH 1120 Public Speaking 3

Also see: Surgical Technology AAS

Start Dates

Fall Semester.....August
 Spring SemesterJanuary

Faculty Contact

[Rita Schutz](#).....763-576-4123
[Becky Driscoll](#)..... 763-576-4119

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	First Semester	Second Semester
1st YEAR	COMP 1002 2	BIOL 2200 4
	*BIOL 2100 4	SPCH 1200 or 1120 3
	HLTH 1040 2	SURG 1003 3
	PSYC 1505 or 1405 4	SURG 1005 2
	TOTAL 15	TOTAL 12

*BIOL 1106 is a prerequisite for BIOL 2100. Please contact your program advisor with any questions.



Program Information

The Anoka Technical College Surgical Technology Associate in Applied Science (AAS) degree is a 60-credit program designed to develop skills in all phases of operating room procedures and techniques, including clinical experience in the operating room.

In addition to operating room techniques, surgical procedures, surgical instruments and equipment, students study surgical microbiology, surgical pharmacology, medical terminology, anatomy and physiology, asepsis (sterile technique), preparation of the patient for surgery, and the physical conditions that make it necessary for a person to have surgery.

Accreditation/Certification

The Anoka Technical College Surgical Technology program is nationally accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Graduates will take the National Certification Examination for Surgical Technologists: CAAHEP, 25400 U.S. Hwy 19 N, Ste 158, Clearwater, FL 33756, www.caahep.org

Prerequisites/Admission Guidelines

A background in general math, anatomy/physiology, biology, health and life sciences, medical terminology, and nursing assistant skills can be helpful. Prospective students should have the ability to work under stress, the stamina to stand for many hours without relief, and the ability to lift and move heavy operating room equipment and anesthetized patients.

A medical doctor's physical examination to verify good physical and emotional health with positive Rubella Titer or evidence of immunization is mandatory. Students are strongly encouraged to take the Hepatitis B vaccine.

Steps for the application process for Surgical Technology AAS:

1. Successful completion of the Sterile Processing certificate
2. TEAS for Allied Health programs with a minimum score of 60%

Second year courses are restricted to students admitted to the Surgical Technology program. A medical exam is REQUIRED.

Background Study

Clinical hospitals are located in the Twin Cities metropolitan area, and students must provide their own transportation to and from these assigned clinical sites and pay for any parking fees. State law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility have a background study conducted by the state. A student who is disqualified as a result of a background check will not be allowed to enter the program major.

If a student is disqualified, the student has the right to request reconsideration of the disqualification. It is the responsibility of the student to request reconsideration by the Commissioner of Health, if he or she chooses to do so. An applicant is considered to be disqualified while in the reconsideration process. A student who has been disqualified will not be sent to a clinical site.

Clinicals

Clinical hospitals are located in the Twin Cities metropolitan area. Students must provide their own transportation to and from these assigned clinical sites and pay for any parking fees.

Graduation Requirements

Collect seven passed independent evaluation forms from assigned hospital staff, including one passed independent evaluation by the clinical instructor assuring mastery of clinical objectives, outcomes and validation of staff evaluations.

Complete 120 cases: 30 cases in general surgery (20 must be first scrub role) and 90 cases in specialty areas (60 must be in the first scrub role).

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Surgical technologists function mainly as a scrub person in a hospital operating room. The technologist sets up the instruments, drapes, sutures, and supplies for surgical procedures, assists the surgeon and other operating team members with gowning and gloving for surgery, and hands instruments, sutures and supplies to the surgeon throughout the operative procedure.

Surgical technologists work closely with surgeons and registered nurses, are able to anticipate the needs of the physician during surgery, and assist in the care of the patient during surgical procedures.

The ability to perform under pressure in stressful and emergency situations is a quality essential to surgical technologists. A stable temperament, a strong sense of responsibility, considerable patience, and concern for order are also required. Manual dexterity and physical stamina are vital. Technologists must be able to work quickly and accurately, be oriented to detail and integrate a number of activities according to priority. Technologists must be keenly sensitive to the needs of the patient, as well as to the needs of other members of the surgical team. Individuals who practice this profession have a strong desire to help others and make a valuable contribution to society.



2016-2017

Surgical Technology

Associate in Applied Science (AAS) Degree

Wages/Outlook/Advancement Opportunities

Surgical Technology program graduates are qualified to work in hospital operating rooms, day surgery units, OB labor and delivery, cardiovascular labs, and research labs. Overtime and call time will vary with position and place of employment.

With additional training, some technologists advance to first assistants, who help retract, sponge, and suture during surgery. They also help close and treat wounds.

Some technologists manage supply departments in hospitals. Others take jobs with insurance companies, supply services, or medical equipment companies.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 41 Credits

- Completion of the Sterile Processing Certificate..... 9
- *SURG 1010 Surgical Pharmacology 2
- *SURG 1026 Operating Room Theory 2
- *SURG 1027 Operating Room Techniques 4
- *SURG 1035 Operating Room Procedures I 4
- **SURG 1037 Operating Room Procedures II 4
- **SURG 2000 Operating Room Clinical 16

* These courses must be completed prior to enrolling in SURG2000.

**SURG 1037 and SURG 2000 must be taken concurrently

General Education/MnTC Requirements: 19 Credits

Nineteen general education credits of Minnesota Transfer Curriculum (MnTC) are required. This requirement is met upon completion of the Sterile Processing certificate.

Student is required to take:

- MnTC credits are completed in Sterile Processing certificate.. 19

Also see: Sterile Processing certificate

Start Dates

Application process for the second year begins in March

Fall Semester.....August

Spring SemesterJanuary

Faculty Contact

[Rita Schutz](#).....763-576-4123

[Becky Driscoll](#)..... 763-576-4119

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	COMP 1002 2	BIOL 2200 4
	*BIOL 2100 4	SPCH 1200 or 1120 3
	HLTH 1040 2	SURG 1003 3
	PSYC 1505 or 1405 4	SURG 1005 2
	**TOTAL 12	**TOTAL 12
2nd YEAR	SURG 1010 2	SURG 1037 4
	SURG 1026 2	SURG 2000 16
	SURG 1027 4	TOTAL 20
	SURG 1035 4	
	TOTAL 12	

*BIOL 1106 is a prerequisite for BIOL 2100. Please contact your program advisor with any questions.

** First two semesters are completed during the Sterile Processing certificate.





Human Services

Program Information

The Anoka Technical College Community Social Services Associate in Applied Science (AAS) degree is a 60-credit program designed to prepare students to become Direct Service Providers or Designated Coordinators in settings where vulnerable or at-risk people are housed or treated. Direct service providers are the caregivers in these settings, and the designated coordinators oversee the daily activities of the setting.

The program exposes students to the laws, rules, and regulations surrounding the care and treatment of vulnerable people, specifically developmentally and cognitively disabled people. Additionally, the program trains students how to best support developmentally disabled people, as well as to understand the psychological characteristics of and treatments for various developmental and cognitive disabilities.

Additionally, program coursework also helps define the roles of the direct service provider, designated coordinator and social worker as advocates and resource providers, helping vulnerable clients and residents receive care and services. Coursework in social work, social services, and the broad base of sociology and psychology classes taken as part of this program will prove valuable for those students who wish to transfer to a four-year institution to potentially major in human services, psychology, social work or sociology

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Background Study

Minnesota Law requires that any person who provides services that involve direct contact with patients and/or residents at a health care facility licensed by the Minnesota Department of Health; have a background study conducted by the state. An individual who is disqualified from having direct patient contact as a result of the background study, and whose disqualification is not set aside by the Commissioner of Health, will not be permitted to participate at a clinical site. The student has the right to request reconsideration of the disqualification. For consideration to continue in the program the student must request reconsideration and provide a copy of such request. The student is responsible for requesting the commissioner to reconsider the disqualification. The college will withdraw any student who is disqualified by the Minnesota Department of Health.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_

inst=70&from_prog=&to_inst=&Search=Search)

- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Students graduating from the Community Social Service (CSS) program AAS degree program are eligible for positions in several areas in the health, human services and education fields with children, adolescents, adults and senior citizens. The graduating student may serve a variety of at-risk populations including people with disabilities, mental illness, substance abuse, poverty and disadvantaged.

Students who may be interested in social work, sociology, psychology or other health-related areas may want to consider the CSS program as a well-rounded educational base to support further development of generalist skills at a four-year institution.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 36 Credits

- CSS 1010 Direct Support Professionalism 3
- CSS 1020 Physical Developmental Supports I 3
- CSS 1030 Person Centered Planning 3
- CSS 1040 Facilitating Positive Behaviors 3
- CSS 1550 Social Services Projects 3
- CSS 1560 Social Welfare Services 3
- CSS 1570 Introduction to Social Work 3
- CSS 2020 Physical Developmental Supports II 3
- CSS 2050 Supportive Interventions 4
- CSS 2100 Internship 4
- HLTH 1000 Disease Conditions 2
- HLTH 1040 Medical Terminology 2

General Education/MnTC Requirements: 24 Credits

Twenty four (24) general education credits must be taken from the Minnesota Transfer Curriculum (MnTC). Student is required to take:

- BIOL 1106 Introduction to Biology 4
 - ENGL 1105 English Composition 4
 - PSYC 1505 General Psychology 4
 - PSYC 1605 Abnormal Psychology 4
 - SOSC 1010 Introduction to Sociology 3
 - SPCH 1200 Interpersonal Communications 3
- OR
- SPCH 1500 Intercultural Communications 3
 - Select TWO credits from a MnTC goal area 2

Start Dates

Application process for the second year begins in March

Fall Semester August
Spring Semester January



2016-2017

Community Social Services

Associate in Applied Science (AAS) Degree

Faculty Contact

[Zakia Robbins](mailto:Zakia.Robbins@anokatech.edu) 763-576-4182

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	CSS 1010 3	CSS 1020 3
	CSS 1040 3	CSS 1030 3
	ENGL 1105 4	CSS 1570 3
	PSYC 1505 4	HLTH 1040 2
	SPCH 1200 or SPCH 1500 .3	SOSC 1010 3
	TOTAL 17	TOTAL 14
2nd YEAR	CSS 1550 3	Gen Ed/MnTC 2
	CSS 1560 3	CSS 2020 3
	CSS 2050 4	CSS 2100 4
	BIOL 1106 4	PSYC 1605 4
	HLTH 1000 2	TOTAL 13
	TOTAL 16	



Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree is a 68-credit, designed to get you out and working as soon as you can. The academics are designed to be completed in two years. The speed requirement may be completed in two years or may take additional time to complete. Coursework includes English, Legal and Medical Terminology, Business Law, Computer Technology and Machine Shorthand Theory.

Students learn a conflict-free realtime theory that enables them to write efficiently on a realtime system starting in the first semester. Students learn theory in their first year of classes, then work to increase their speed and accuracy until they can capture literary material at 180 wpm, Jury Charge material at 200 wpm, and question-and-answer material at 225 wpm. Summer sessions are mandatory for Judicial Reporting students.

Prerequisites

* The prerequisite for JRBC1005 is COMP0100 Basic Computer Keyboarding or successful test out at 25 wpm or more.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Accreditation/Certification

All curricula were created to meet or exceed National Court Reporters Association (NCRA) standards set out by the Council on Approved Student Education (CASE).

The Judicial Reporting/Broadcast Captioning/CART programs are approved by NCRA. Upon graduation, students will be ready to take the NCRA's Registered Professional Reporter (RPR) certification exam. The RPR exam is offered twice per year in April and November.

Program Essentials

Laptop, steno machine, Eclipse student software. Please see instructor for specific requirements before purchasing any equipment. See Tuition and Fees for more information.

Graduation Requirements

Students must earn a grade of "B" or better in all speedbuilding classes and a grade of "C" or better in all other coursework in order to graduate. In addition, students shall pass three five-minute speed tests with 97% accuracy at the following speeds: 225 wpm testimony (two-voice), 200 wpm jury charge, and 180 wpm literary.

The student shall successfully complete an internship with no less than 40 hours of verified actual writing time.

Upon graduation, students will be ready to take the NCRA's Registered Professional Reporter (RPR) certification exam. The RPR exam is offered twice per year, in April and November.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Judicial Reporters can work in courtrooms as official reporters, creating accurate verbatim written records of all the proceedings. Official reporters are employed by the State. Deposition reporting (also known as freelance reporting) is a popular field because it is interesting and allows for flexible scheduling. Freelance reporters typically work on an independent contractor basis taking depositions at law offices.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 53 Credits

<input type="checkbox"/> ADSC 1006 Business Law	4
<input type="checkbox"/> HLTH 1040 Medical Terminology	2
<input type="checkbox"/> JRBC 1000 Realtime Reporting Orientation	1
<input type="checkbox"/> JRBC 1005 Realtime Reporting I*	4
<input type="checkbox"/> JRBC 1031 Foundations of Law	3
<input type="checkbox"/> JRBC 1105 Realtime Reporting II**	4
<input type="checkbox"/> JRBC 1120 Realtime Reporting Technology	3
<input type="checkbox"/> JRBC 1200 Realtime Reporting III**	4
<input type="checkbox"/> JRBC 2000 Realtime Reporting IV**	4
<input type="checkbox"/> JRBC 2011 Transcription & English I	3
<input type="checkbox"/> JRBC 2016 Transcription & English II	3
<input type="checkbox"/> JRBC 2030 Judicial Reporting Procedures	3
<input type="checkbox"/> JRBC 2036 Word Enrichment	3
<input type="checkbox"/> JRBC 2040 Business Success for Realtime Careers	2
<input type="checkbox"/> JRBC 2100 Realtime Reporting V**	4
<input type="checkbox"/> JRBC 2120 Realtime Reporting VI**	4
<input type="checkbox"/> JRBC 2140 Judicial Reporting Internship	2

* Students must complete the Realtime Reporting classes in sequence
Additional speedbuilding courses available upon instructor approval.

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits from three goals areas of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- General Education/MnTCU Courses 15

Also see: Broadcast Captioning/CART certificate and Scoping/Proofreading certificate



2016-2017

Judicial Reporting

Associate in Applied Science (AAS) Degree

Start Dates

Application process for the second year begins in March
Fall Semester.....August

Summer sessions are mandatory for Judicial Reporting students.

Faculty Contact

[Jennifer Sati](#), RMR, CRR, CBC, CRI..... 763-576-4064

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester	
1st YEAR	ADSC 1006..... 4	JRBC 1105 4	
	JRBC 1000 1	JRBC 1120 3	
	JRBC 1005 4	JRBC 1200 4	
	JRBC 1031 3	JRBC 2011 3	
	TOTAL..... 12	TOTAL..... 14	
2nd YEAR	Fall Semester	Spring Semester	
	HLTH 1040 2	JRBC 2036 3	
	JRBC 2000 4	JRBC 2100 4	
	JRBC 2016 3	JRBC 2120 4	
	JRBC 2030 3	JRBC 2140 2	
	JRBC 2040 2	TOTAL 13	
TOTAL 11			

Note: Sequence does NOT include General Education/MnTC requirements.



Program Information

The Anoka Technical College Broadcast Captioning/CART (Communications Access Realtime Translation) certificate is a 16-credit program. The program consists of a core of machine shorthand speedbuilding courses, Realtime/Captioning/CART technology courses and courses to help students become familiar with the Deaf community. Students use student versions of software used in industry for realtime translation and the actual equipment/software required to caption. The central objective of the Broadcast Captioning/CART program is to train students to write conflict-free machine shorthand on a computer-compatible stenotype machine, utilizing the industry standard computer-assisted realtime translation at 97 percent accuracy.

NOTE: This certificate is offered through the Judicial Reporting/Broadcast Captioning program.

Prerequisites

Students registering for this certificate need to have already completed the Judicial Reporting Associate in Applied Science (AAS) or be working in the reporting field and want to retrain to work in the Captioning/CART industries.

Accreditation/Certification

All curricula were created to meet or exceed National Court Reporters Association (NCRA) standards set by the Council on Approved Student Education (CASE). The Judicial Reporting/Broadcast Captioning/CART programs are approved by NCRA. Upon graduation, students will be ready to take the NCRA's Certified Broadcast Captioner (CBC) and/or Certified CART Provider (CCP) certification exams. Exams are offered twice per year in November and April.

Estimated Costs

Laptop, steno machine, Eclipse student software or professional software. Please see instructor for specific requirements before purchasing any equipment. Also see Tuition and Fees for more information.

Graduation Requirements

Students must earn a grade of "B" or better in the Broadcast Captioning and CART Practicum and Realtime Principles and a grade of "C" or better in all other coursework in order to graduate. In addition, students shall pass three, five-minute timings with 97 percent real-time accuracy at 180 wpm literary (with 1.4 syllabic density). Students must successfully complete an internship with no less than 40 hours of verified actual writing time for captioning. Students must successfully complete an internship with no less than 40 hours of verified actual writing time for CART. From internships, students prepare a captioned translation of one hour and a CART translation of one hour.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)

- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Completion of the Broadcast Captioning/CART certificate allows graduates to work in a variety of settings either as broadcast captioners or as CART providers.

Broadcast captioners use realtime machine shorthand skills to create the captioning you see on television. This captioning is created to allow access to television broadcasts for people who are deaf and hard of hearing. Broadcast captioners work doing on-air captioning of live programming.

CART is a service that can be requested by people who are hard of hearing as an alternative to having a sign language interpreter. It falls under the Americans with Disabilities Act (ADA) as one way of providing equal access to services. Graduates can find work as CART providers in legal, educational and various trade fields.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 12 Credits

- ASL 1000 Deaf Studies/Culture* 3
 - JRBC 1400 Realtime Principles 2
 - JRBC 1405 Broadcast Captioning & CART Practicum 2
 - JRBC 2126 Broadcast Captioning & CART Procedures & Research 3
 - JRBC 2135 Broadcast Captioning & CART Internship 2
- *ASL1100 (American Sign Language I) may be substituted for Deaf Studies/Culture.

General Education/MnTC Requirements: 4 Credits

Four (4) elective general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- General Education/MnTC 4

Also see: Judicial Reporting AAS degree and Scoping/Proofreading certificate

Start Dates

Fall Semester August
Spring Semester January

Faculty Contact

[Jennifer Sati](#), RMR, CRR, CBC, CRI 763-576-4064

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Scoping/Proofreading certificate is a 28-credit program to be completed in one-and-a-half years. Scoping/Proofreading students learn shorthand theory with Judicial Reporting students. Students also take Legal Terminology, Medical Terminology, Realtime Reporting Orientation, Realtime Reporting Technology, Business English and Transcription and English. There are three additional classes Scoping/Proofreading students will take: Advanced Proofreading and English Skills, Scoping Procedures and Advanced Transcript Production.

NOTE: This certificate is offered through the Judicial Reporting/Broadcast Captioning program.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Estimated Costs

Laptop, steno machine, Eclipse student software. Students may use a loaner steno machine from the department. See instructor for specific requirements before purchasing any equipment.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Scopists and proofreaders work in conjunction with court reporters to produce the final transcript that is prepared from court proceedings or depositions. Transcripts are accurate verbatim written records of the proceedings. At the end of a proceeding, some court reporters send their files to a scopist, who then edits the job for the court reporter. Scopists need to know how to read shorthand notes and use court reporting software. Other court reporters edit their own work but hire proofreaders to read over their transcripts to check for errors.

Wages/Outlook/Advancement

Scopists and proofreaders are self-employed and are paid by the page. Earnings are contingent on the following: time worked, expertise, speed, and efficiency.

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 29 Credits

<input type="checkbox"/>	JRBC 1000	Realtime Reporting Orientation	1
<input type="checkbox"/>	JRBC 1005	Realtime Reporting I	4
<input type="checkbox"/>	JRBC 1031	Foundations of Law	3
<input type="checkbox"/>	JRBC 1105	Realtime Reporting II	4
<input type="checkbox"/>	JRBC 1120	Realtime Reporting Technology	3
<input type="checkbox"/>	JRBC 2011	Transcription & English I	3
<input type="checkbox"/>	JRBC 2016	Transcription & English II	3
<input type="checkbox"/>	JRBC 2030	Judicial Reporting Procedures	3
<input type="checkbox"/>	JRBC 3101	Scoping Procedures	2
<input type="checkbox"/>	HLTH 1040	Medical Terminology	2

Students must complete the JRBC classes in sequence.

Also see: Judicial Reporting AAS degree and Broadcast Captioning CART certificate

Start Dates

Fall Semester.....	August
Spring Semester	January

**New theory classes start fall semester only. Students wishing to start spring semester may take courses on the degree plan without the JRBC prefix.*

Faculty Contact

[Jennifer Sati](#), RMR, CRR, CBC, CRI..... 763-576-4064

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Sample Program Sequence:

Full Time

1 st YEAR	Fall Semester	Spring Semester
	JRBC 1000 1	JRBC 1105 4
JRBC 1005 4	JRBC 1120 3	
JRBC 1031 3	JRBC 2011 3	
TOTAL 8	TOTAL 10	
2 nd YEAR	Fall Semester	Spring Semester
	JRBC 2016 3	
JRBC 2030 3		
JRBC 3101 3		
HLTH 1040 2		
TOTAL 11		

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Legal Administrative Assistant is a 60-credit program that consists of a core of general administrative courses, designed to develop basic skills, and additional credits of specialized legal courses.

In addition to basic keyboarding, accounting, and English language skills, the legal administrative assistant student will receive training in computer operations and legal software, legal transcription and document preparation.

Prerequisites

Prospective students should have strong communications skills, including grammar and writing, and an interest in computers and software. Prospective students should also be personable, able to function in stressful situations, and comfortable with confidentiality and other ethical requirements of the legal profession.

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

See Credits:

^[A]The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As a legal administrative assistant, you will work for lawyers in private law firms, governmental offices, legal departments of corporations, court houses, legal aid offices, or the offices of county attorneys or public defenders. The legal administrative assistant functions as an assistant to the lawyer or judge.

Duties may include preparing legal documents, billing and accounting, processing correspondence, transcribing, communicating with clients, utilizing a variety of software, and organizing and managing a busy legal practice.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 45 Credits

- ADSC 1003 Introduction to Keyboarding and Speedbuilding.....2
- ADSC 1006 Business Law 4
- ADSC 1010 Keyboarding I ^[A]..... 3
- ADSC 1031 Business English Skills 3
- ADSC 1054 Office Bookkeeping 4
- ADSC 1064 Government, Courts and Criminal Law 3
- ADSC 1075 Corporate Law, Collections and Bankruptcy 3
- ADSC 1085 Probate and Real Estate Law 4
- ADSC 1095 Family Law and Civil Litigation 4
- ADSC 1100 Legal Research, Citations, and Office Procedures 4
- ADSC 1111 Legal Transcription 2
- ADSC 1135 Legal Admin. Assistant Internship 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1196 Microsoft Word 4
- Technical Elective..... 1

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL1105 Composition I 4
- OR
- ENGL2105 Business and Technical Writing..... 4
- INTS 1000 Critical Thinking Applications for College 3
- General Education/MnTC Courses..... 8

Also see: Legal Administrative Assistant diploma

Start Dates

- Fall Semester..... August
- Spring Semester..... January
- Summer Semester May

Faculty Contact

[Deborah Allen](#) 763-576-4024

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Legal Administrative Assistant

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

		Fall Semester		Spring Semester	
1st YEAR		ADSC 1003.....	2		
		ADSC 1010.....	3		ADSC 1006..... 4
		ADSC 1031.....	3		ADSC 1054..... 4
		ADSC 1064.....	3		ADSC 1196..... 4
		INTS 1000.....	3		ENGL 1105 or 2105..... 4
		TOTAL	14		TOTAL .....	16
2nd YEAR					
		ADSC 1075.....	3		ADSC 1095..... 4
		ADSC 1085.....	4		ADSC 1100..... 4
		ADSC 1111.....	2		ADSC 1135..... 2
		ADSC 1171.....	2		Gen Ed/MnTC..... 4
		Gen Ed/MnTC.....	4		Technical Elective..... 1
	TOTAL	15		TOTAL	15

Program Information

The Anoka Technical College Legal Administrative Assistant diploma is a 51-credit online program that consists of technical legal specialty courses plus a core of general education classes designed to develop basic skills.

This online program combines basic administrative assistant courses with specialized legal courses to provide graduates a broad based skill set for success in the work place.

Prerequisites

Prospective students should have strong communications skills, including grammar and writing, and an interest in computers and software. Prospective students should also be personable, able to function in stressful situations, and comfortable with confidentiality and other ethical requirements of the legal profession. Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

See Credits:

^[A] The prerequisite to ADSC1010 Keyboarding I is ADSC1003 Introduction to Keyboarding and Speedbuilding.

Estimated Costs

Laptop, steno machine, Eclipse student software. Students may use a loaner steno machine from the department. See instructor for specific requirements before purchasing any equipment.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

The Legal Administrative Assistant diploma program has credit transferability to the Legal Administrative Assistant AAS degree program.

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

As a Legal Administrative Assistant, you will work for lawyers in private law firms, governmental offices, legal departments or corporations, court houses, legal aid offices, or the offices of

county attorneys or public defenders. The legal administrative assistant functions as an assistant to the lawyer or judge.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 44 Credits

- ADSC 1003 Introduction to Keyboarding and Speedbuilding 2
- ADSC 1006 Business Law 4
- ADSC 1010 Keyboarding I ^[A] 3
- ADSC 1031 Business English Skills 3
- ADSC 1054 Office Bookkeeping 4
- ADSC 1064 Government, Courts, and Criminal Law 3
- ADSC 1075 Corporate Law, Collections and Bankruptcy 3
- ADSC 1085 Probate and Real Estate Law 4
- ADSC 1095 Family Law and Civil Litigation 4
- ADSC 1100 Legal Research, Citations and Office Procedures 4
- ADSC 1111 Legal Transcription 2
- ADSC 1171 Microsoft Excel 2
- ADSC 1196 Microsoft Word 4
- Technical Elective..... 2

General Education/MnTC Requirements: 7 Credits

Seven (7) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL1105 Composition I 4
- OR*
- ENGL2105 Business and Technical Writing..... 4
- INTS 1000 Critical Thinking Applications for College 3

Also see: Legal Administrative Assistant AAS degree

Start Dates

Fall Semester..... August
Spring Semester January

Faculty Contact

[Deborah Allen](#) 763-576-4024


For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ADSC 1003..... 2	ADSC 1006..... 4
	ADSC 1010..... 3	ADSC 1111..... 2
	ADSC 1031..... 3	ADSC 1171 2
	ADSC 1064..... 3	ADSC 1196 4
	INTS 1000..... 3	TOTAL 12
	TOTAL 14	
2nd YEAR	ADSC 1054..... 4	ADSC 1135 4
	ADSC 1075..... 3	ADSC 1095..... 4
	ADSC 1085..... 4	ENGL 2105 or 1105 4
	Technical Elective 2	TOTAL 12
	TOTAL 13	



Information Technology Management

Business Data Technician

Associate in Applied Science (AAS) Degree

Technical Requirements 45
 General Education/MnTC 15
 Total Credits 60

Program Information

The Anoka Technical College Business Data Technician Associate in Applied Science (AAS) degree is a 60-credit program that focuses on developing leadership and data analysis capabilities in students at all levels in organizations.

The Business Data Technician will design, develop, implement, and maintain business solutions for information delivery. In addition to very strong technical skills, the student will have superb business process analysis and interpersonal skills, the ability to extract and analyze data, patterns, and ability to synthesize the data into information consumable by senior business decision makers.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Business Data Technician graduates are specialists in their field. Business Data Technicians use computer with specialized software to analyze data. In their analyses, the Business Data Technician extracts and analyzes data, patterns, synthesizes the data into comprehensible information and conducts tests to find out the data's reliability and validity.

Business Data Technicians present the findings from their analyses and discuss the data's limitations to prevent inaccurate conclusions from being drawn. They may present written reports, tables, charts, and graphs to other team members and to clients.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 45 Credits

- ACCT 1015 Principles of Accounting I 4
- ADSC 1010 Keyboarding I 3
- ADSC 1045 Administrative Office Procedures..... 4
- BDAT 1000 Business Concepts 2
- BDAT 1010 Integrated Business Software 3
- BDAT 1020 Data Mining 3
- BDAT 1030 Data Analysis 4
- ITEC 1025 Project Management 4
- ITEC 2120 DB Design & SQL 4
- ITEC 2127 Information Systems Analysis 4
- ITEC 2140 Business Intelligence 4
- ITEC 2150 Advanced Business Intelligence 2
- TLIT 1005 Technology Fundamentals 3

General Education/MnTC Requirements: 15 Credits

Fifteen (15) general education credits of Minnesota Transfer Curriculum (MnTC) are required. Student is required to take:

- ENGL 2105 Business and Technical Writing 4
- MATH 1550 Introduction to Statistics 4

Start Dates

Fall Semester August, October
 Spring Semester January, March
 (Also multiple start option each semester)

Faculty Contact

[Vicki Baumgartner](#) 763-576-4146
[Julie Myers](#) 763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	ADSC 1010..... 3	ACCT 1015 4
	ADSC 1045..... 4	BDAT 1010 3
	BDAT 1000 2	ITEC 2120..... 4
	TLIT 1005 3	MATH 1550..... 4
	Gen Ed 3	TOTAL 15
	TOTAL 15	
2nd YEAR	BDAT 1020 3	BDAT 1030 4
	ITEC 2127 4	ITEC 1025..... 4
	ITEC 2140..... 4	ITEC 2150..... 2
	ENGL 2105 4	Gen Ed 4
	TOTAL 15	TOTAL 14



Convergence Technology

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in Convergence Technology is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in one option while the common core courses and required electives from other options build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable, in many cases even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The graduate will be a specialist in one of the areas of concentration in Information Technology (IT), but will also have a broad base of foun-

dational knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2206	Windows Network Administration	6
<input type="checkbox"/>	ITEC 2215	Linux/Web Server Administration	4
<input type="checkbox"/>	ITEC 2400	Convergence Technology.....	4
<input type="checkbox"/>	ITEC 2407	Internetworking Device I.....	4
<input type="checkbox"/>	ITEC 2408	Internetworking Device II.....	4
<input type="checkbox"/>	ITEC 2409	Network Scripting.....	4
<input type="checkbox"/>	ITEC 2415	Virtualization Technologies	4
<input type="checkbox"/>	ITEC 2430	Firewall Security	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

- General Education/MnTC 15
- Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development*

Start Dates

Fall Semester.....August, October
 Spring Semester..... January, March
 (Also multiple start option each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Convergence Technology diploma is a 57-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Network Analyst
- Game Programming
- Software Development
- Web Design & Development
- Mobile Development

This unique program allows technical specialization in one option while the common core courses and required electives from other options build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable, in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Anoka Technical College Convergence Technology graduate will be a specialist in one of the areas of concentration in Information Technology, but will also have a broad base of foundational

knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2206	Windows Network Administration	6
<input type="checkbox"/>	ITEC 2215	Linux/Web Server Administration	4
<input type="checkbox"/>	ITEC 2400	Convergence Technology.....	4
<input type="checkbox"/>	ITEC 2407	Internetworking Device I.....	4
<input type="checkbox"/>	ITEC 2408	Internetworking Device II.....	4
<input type="checkbox"/>	ITEC 2409	Network Scripting.....	4
<input type="checkbox"/>	ITEC 2415	Virtualization Technologies	4
<input type="checkbox"/>	ITEC 2430	Firewall Security	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....August, October
 Spring Semester

January, March
 (Also multiple start option each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Database Design & Development

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements	57
General Education/MnTC	15
Total Credits	72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology (IT) with a concentration in Database Design & Development is a 72-credit program is designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in one option while the common core courses and required electives build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable, in many cases even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

According to the US Bureau of Labor Statistics, employment of all software developers, including database developers, will grow 22% from 2012 to 2022, which is a pace much faster than the national

average for all jobs. The median annual earnings of applications software developers were \$90,060 in May 2012.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 57 Credits

<input type="checkbox"/> ITEC 1002	Networking Fundamentals	3
<input type="checkbox"/> ITEC 1016	Web Development Technologies	4
<input type="checkbox"/> ITEC 1025	Project Management	4
<input type="checkbox"/> ITEC 1035	Documentation Standards	2
<input type="checkbox"/> ITEC 1070	IT Support	1
<input type="checkbox"/> ITEC 2100	Programming Logic & Design	4
<input type="checkbox"/> ITEC 2105	JAVA Programming	4
<input type="checkbox"/> ITEC 2113	.NET Technologies	4
<input type="checkbox"/> ITEC 2120	DB Design & SQL	4
<input type="checkbox"/> ITEC 2136	Web Data Technologies	4
<input type="checkbox"/> ITEC 2140	Business Intelligence (Report Writing)	4
<input type="checkbox"/> ITEC 2145	Database Programming	4
<input type="checkbox"/> ITEC 2220	DB Administration & Security	4
<input type="checkbox"/> ITEC 2501	Android Application Development	4
<input type="checkbox"/> ITEC 2900	Integrated Capstone Project	4
<input type="checkbox"/> TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/> General Education/MnTC	15
-------------------------------------------------------	----

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester	August, October
Spring Semester	January, March
Summer	June

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Database Design & Development diploma is a 57-credit program that provides students with the knowledge needed to design and implement information technology solutions that meet business requirements. Students are prepared to enter the job market as data analysts, software programmers, database developers, business analysts or systems analysts.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

According to the US Bureau of Labor Statistics, employment of all software developers, including database developers, will grow 22% from 2012 to 2022, which is a pace much faster than the national average for all jobs. The median annual earnings of applications software developers were \$90,060 in May 2012.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies.....	4
<input type="checkbox"/>	ITEC 1025	Project Management.....	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards.....	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming.....	4
<input type="checkbox"/>	ITEC 2113	NET Technologies.....	4
<input type="checkbox"/>	ITEC 2120	DB Design & SQL.....	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies.....	4
<input type="checkbox"/>	ITEC 2140	Business Intelligence (Report Writing).....	4
<input type="checkbox"/>	ITEC 2145	Database Programming.....	4
<input type="checkbox"/>	ITEC 2220	DB Administration & Security.....	4
<input type="checkbox"/>	ITEC 2501	Android Application Development.....	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals.....	3

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester..... August, October
Spring Semester..... January, March
(Also multiple start options each semester)

Faculty Contact

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Game Programming

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in Game Programming is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers. The Game Programming emphasis focuses on designing, developing, and deploying computer programs and games. Students learn animation skills and programming techniques suitable for developing elementary interactive computer games.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in one option while the common core courses and required electives build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable, in many cases even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The Game Programming graduate is a specialist in one of the areas of concentration in Information Technology, but will also have a

broad base of foundational knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, are emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming	4
<input type="checkbox"/>	ITEC 2310	Graphic Design Technologies	4
<input type="checkbox"/>	ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/>	ITEC 2326	Gaming Technologies	4
<input type="checkbox"/>	ITEC 2331	Advanced Gaming Technologies	4
<input type="checkbox"/>	ITEC 2342	Game Scripting	2
<input type="checkbox"/>	ITEC 2345	Game Testing	4
<input type="checkbox"/>	ITEC 2501	Android Application Development.....	4
<input type="checkbox"/>	ITEC 2506	Apple Programming.....	4
<input type="checkbox"/>	ITEC 2511	Apple Mobile Application Development.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area
 Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/>	General Education/MnTC	15
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Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....	August, October
Spring Semester	January, March

(Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Game Programming diploma is a 57-credit program is designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The Game Programming diploma focuses on designing, developing and deploying computer programs and games. Students learn animation skills and programming techniques suitable for developing elementary interactive computer games.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in one option while the common core courses and required electives from other options build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable - in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The graduate will be a specialist in one of the areas of concentration in Information Technology, but will also have a broad base of foundational knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles, and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies.....	4
<input type="checkbox"/>	ITEC 1025	Project Management.....	4
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming.....	4
<input type="checkbox"/>	ITEC 2310	Graphic Design Technologies.....	4
<input type="checkbox"/>	ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/>	ITEC 2326	Gaming Technologies.....	4
<input type="checkbox"/>	ITEC 2331	Advanced Gaming Technologies.....	4
<input type="checkbox"/>	ITEC 2345	Game Testing.....	4
<input type="checkbox"/>	ITEC 2342	Game Scripting.....	2
<input type="checkbox"/>	ITEC 2501	Android Application Development.....	4
<input type="checkbox"/>	ITEC 2506	Apple Programming.....	4
<input type="checkbox"/>	ITEC 2511	Apple Mobile Application Development.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals.....	3

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....August, October
Spring Semester.....January, March
(Also multiple start options each semester)

Faculty Contact

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Mobile Development

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements	57
General Education/MnTC	15
Total Credits	72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in mobile programming is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

The unique program allows technical specialization in Mobile Development while the common core courses and required electives from other specializations build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work study positions are available. IT graduates are highly employable; in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

According to the U.S. Bureau of Labor Statistics, employment of all software developers, including database developers, will grow 22%

from 2012 to 2022, which is a pace much faster than the national average for all jobs. The median annual earnings of applications software developers were \$90,060 in May 2012.\

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards	2
<input type="checkbox"/>	ITEC 1070	IT Support	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming	4
<input type="checkbox"/>	ITEC 2113	.NET Technologies	4
<input type="checkbox"/>	ITEC 2115	IT Support & Security	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies	4
<input type="checkbox"/>	ITEC 2501	Android Application Development	4
<input type="checkbox"/>	ITEC 2506	Apple Programming	4
<input type="checkbox"/>	ITEC 2511	Apple Mobile Application Development	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/>	General Education/MnTC	15
--------------------------	------------------------------	----

Also see associate in AAS degrees and diplomas in: Convergency Technology, Information Systems Analyst, Mobile Development Multimedia & Game Programming, Network Analyst, Software Development, and Web Design & Development

Start Dates

Fall Semester	August, October
Spring Semester	January, March

(Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

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Program Information

The Anoka Technical College Mobile Development diploma is a 57-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

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- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical mobile development graduates are specialist in their field and also have a broad base of foundational knowledge from the common core courses that span the six areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies.....	4
<input type="checkbox"/>	ITEC 1025	Project Management.....	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards.....	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming.....	4
<input type="checkbox"/>	ITEC 2113	.NET Technologies.....	4
<input type="checkbox"/>	ITEC 2115	IT Support & Security.....	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis.....	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies.....	4
<input type="checkbox"/>	ITEC 2501	Android Application Development.....	4
<input type="checkbox"/>	ITEC 2506	Apple Programming.....	4
<input type="checkbox"/>	ITEC 2511	Apple Mobile Application Development.....	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....	August, October
Spring Semester.....	January, March

(Also multiple start options each semester)

Faculty Contact

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Network Analyst

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in Network Analyst is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in one option while the common core courses and required electives from other options build a broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates will be encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable - in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College network analyst graduates are specialist in their field, and also have a broad base of foundational knowledge from

the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, are emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2115	IT Support & Security.....	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis	4
<input type="checkbox"/>	ITEC 2206	Windows Network Administration	6
<input type="checkbox"/>	ITEC 2215	Linux/Web Server Administration	4
<input type="checkbox"/>	ITEC 2220	DB Admin. & Security	4
<input type="checkbox"/>	ITEC 2230	Network Security Fundamentals.....	4
<input type="checkbox"/>	ITEC 2407	Interworking Devices I	4
<input type="checkbox"/>	ITEC 2420	Cloud Computing.....	2
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/>	General Education/MnTC	15
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Also see: AAS degrees and diplomas in: Convergency Technology, Information Systems Analyst, Mobile Development, Multimedia and Game Programming, Software Development and Web Design and Development

Start Dates

Fall Semester..... August, October
 Spring Semester

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Network Analyst diploma is a 57-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future.

The program prepares graduates for entry-level positions in computer support and network administration requiring network hardware analysis, design, implementation and troubleshooting skills. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in Network Analyst while the common core courses and required electives from other specializations build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work study positions are available. IT graduates are highly employable; in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer score or completing basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certification must meet the Grade-point Average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College network analyst graduates are specialist in their field, and also have a broad base of foundational knowledge from the common core courses that span the seven areas of concentration.

Professional standards, proper methodology such as sound engineering principles and project management, are emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies.....	4
<input type="checkbox"/>	ITEC 1025	Project Management.....	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards.....	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals.....	3
<input type="checkbox"/>	ITEC 2115	IT Support & Security.....	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis.....	4
<input type="checkbox"/>	ITEC 2206	Windows Server Administration.....	6
<input type="checkbox"/>	ITEC 2215	Linux/Web Server Administration.....	4
<input type="checkbox"/>	ITEC 2220	DB Administration & Security.....	4
<input type="checkbox"/>	ITEC 2230	Network Security Fundamentals.....	4
<input type="checkbox"/>	ITEC 2407	Interworking Devices I.....	4
<input type="checkbox"/>	ITEC 2420	Cloud Computing.....	2

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....August, October
Spring Semester.....January, March
(Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

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Software Development

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in Software Development is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in Software Development while the common core courses and required electives from other specializations build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work-study positions will also be available. The IT graduate will be highly employable - in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College software development graduates are specialist in their field, and also have a broad base of foundational

knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, are emphasized throughout the courses.

Wage

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Technical Education: 57 Credits

<input type="checkbox"/> ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/> ITEC 1016	Web Development Technologies	4
<input type="checkbox"/> ITEC 1025	Project Management	4
<input type="checkbox"/> ITEC 1035	Documentation Standards.....	2
<input type="checkbox"/> ITEC 1070	IT Support.....	1
<input type="checkbox"/> ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/> ITEC 2105	JAVA Programming	4
<input type="checkbox"/> ITEC 2113	.NET Technologies	4
<input type="checkbox"/> ITEC 2120	DB Design & SQL.....	4
<input type="checkbox"/> ITEC 2136	Web Data Technologies	4
<input type="checkbox"/> ITEC 2145	Database Programming	4
<input type="checkbox"/> ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/> ITEC 2340	Scripting languages	4
<input type="checkbox"/> ITEC 2501	Android Application Development.....	4
<input type="checkbox"/> ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/> TLIT 1005	Technology Fundamentals.....	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/> General Education/MnTC	15
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Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....	August, October
Spring Semester	January, March

(Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Software Development diploma is a 57-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program provides students with the basis to become a professional software developer. The curriculum combines theoretical design and analysis instruction with extensive hands-on implementation practice using today's hottest software development environments. Students learn the skills necessary to be successful business analysts and software developers. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in Software Development while the common core courses and required electives from other specializations build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work study positions are available. IT graduates are highly employable; in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College software development graduates are specialists in one of the areas of concentration in Information Technology, but will also have a broad base of foundational knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2105	JAVA Programming	4
<input type="checkbox"/>	ITEC 2113	.NET Technologies	4
<input type="checkbox"/>	ITEC 2120	DB Design & SQL.....	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies	4
<input type="checkbox"/>	ITEC 2145	Database Programming	4
<input type="checkbox"/>	ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/>	ITEC 2340	Scripting languages	4
<input type="checkbox"/>	ITEC 2501	Android Application Development.....	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester..... August, October
 Spring Semester..... January, March
 (Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

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Web Design & Development

Emphasis

Associate in Applied Science (AAS) Degree

Technical Requirements 57
 General Education/MnTC 15
 Total Credits 72

Program Information

The Anoka Technical College Associate in Applied Science (AAS) degree in Information Technology with a concentration in Web Design & Development is a 72-credit program designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

The IT degree has an initial curriculum of over 90 courses in seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in Web Design & Development while the common core courses and required electives build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work study positions are available. IT graduates are highly employable; in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Web Design & Development graduate will be a specialist in one of the areas of concentration in Information Technology, but will also have a broad base of foundational

knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2120	DB Design & SQL.....	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies	4
<input type="checkbox"/>	ITEC 2145	Database Programming.....	4
<input type="checkbox"/>	ITEC 2310	Graphic Design Technologies.....	4
<input type="checkbox"/>	ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/>	ITEC 2340	Scripting languages	4
<input type="checkbox"/>	ITEC 2346	Advanced Scripting Technologies	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

General Education/MnTC Requirements: 15 Credits

General Education/MnTC Courses from three (3) MnTC goal areas. Including one (1) transferable MATH course MnTC Goal Area Note: Math may have a prerequisite depending on your Accuplacer assessment score. Student is required to take:

<input type="checkbox"/>	General Education/MnTC	15
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Also see AAS degrees and diplomas in: Convergence Technology, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester..... August, October
 Spring Semester

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



Program Information

The Anoka Technical College Web Design and Development diploma is a 57-credit program is designed to prepare graduates to successfully compete for high-paying, rewarding careers in IT fields with the highest demand, both today and in the future. The program requirements were determined through consultation with employers, those working in the industry, technical training professionals, and those currently seeking training and retraining for IT careers.

This IT diploma is one of seven career areas of concentration:

- Convergence Technology
- Database Design & Development
- Game Programming
- Mobile Development
- Network Analyst
- Software Development
- Web Design & Development

This unique program allows technical specialization in Web Design and Development while the common core courses and required electives from other specializations build the broad IT foundation needed to understand the terminology and methodologies of other IT specialties in the workplace.

Graduates are encouraged to take advantage of access to corporate recruitment and IT recruiting firms. Internships and work study positions are available. IT graduates are highly employable; in many cases, even before graduation.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

Anoka Technical College Web Design & Development graduate will be a specialist in one of the areas of concentration in Information Technology, but will also have a broad base of foundational

knowledge from the common core courses that span the seven areas of concentration. Professional standards, proper methodology such as sound engineering principles and project management, will be emphasized throughout the courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (<http://mn.gov/deed/job-seekers/job-outlook/index.jsp>).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

<input type="checkbox"/>	ITEC 1002	Networking Fundamentals.....	3
<input type="checkbox"/>	ITEC 1016	Web Development Technologies	4
<input type="checkbox"/>	ITEC 1025	Project Management	4
<input type="checkbox"/>	ITEC 1035	Documentation Standards.....	2
<input type="checkbox"/>	ITEC 1070	IT Support.....	1
<input type="checkbox"/>	ITEC 2100	Programming Logic & Design.....	4
<input type="checkbox"/>	ITEC 2120	DB Design & SQL.....	4
<input type="checkbox"/>	ITEC 2127	Information Systems Analysis	4
<input type="checkbox"/>	ITEC 2136	Web Data Technologies	4
<input type="checkbox"/>	ITEC 2145	Database Programming.....	4
<input type="checkbox"/>	ITEC 2310	Graphic Design Technologies.....	4
<input type="checkbox"/>	ITEC 2317	Web Interactivity Tools.....	4
<input type="checkbox"/>	ITEC 2340	Scripting languages	4
<input type="checkbox"/>	ITEC2346	Advanced Scripting Technologies	4
<input type="checkbox"/>	ITEC 2900	Integrated Capstone Project.....	4
<input type="checkbox"/>	TLIT 1005	Technology Fundamentals	3

Also see AAS degrees and diplomas in: Convergence Technolog, Database Design & Development, Game Programming, Mobile Development, Network Analyst, Software Development and Web Design & Development

Start Dates

Fall Semester.....August, October
Spring Semester

January, March
(Also multiple start options each semester)

Faculty Contact

Vicki Baumgartner	763-576-4146
Tracy Hoffman	763-576-4198
Lisa Hubbard	763-576-4085
Gerard Kne	763-576-4044
Mary Lebens	763-576-4169
Alex Minakov	763-576-4002
Julie Myers	763-576-4072

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Transportation, Distribution & Logistics

Automotive Technician

Associate in Applied Science (AAS) Degree

Technical Requirements57
 General Education/MnTC 15
 Total Credits72

Program Information

The Anoka Technical College Automotive Technician Associate in Applied Science (AAS) degree is a 72-credit program that includes technical and general education components. This degree provides the skills for trade entry plus the possibility to pursue a Bachelor of Arts (BA) degree with cooperating colleges and universities.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a “C” or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The ability to make a quick and accurate diagnosis is one of the technician’s most valuable skills. It requires good reasoning ability, as well as a thorough knowledge of automobiles. The technician may be required to determine serviceability, find specifications and service procedures in manuals and technical literature, repair or replace parts, give estimates of repair, and communicate with customers and trade personnel. Most technicians perform a variety of repairs; however, some specialize.

Areas of specialization may include chassis service, drive train service, engine overhaul, fuel delivery and electrical system service, and air conditioning service. Other related areas may include merchandising, service/sales, and manufacturing representatives. Experienced mechanics with leadership ability sometimes advance to shop supervisor or service manager. Those who work well with customers may become service estimators. Some open their own repair shops.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Beginners who learn on the job usually start as trainees or mechanics’ helpers. Within a few months, they perform many routine service tasks and make simple repairs. It usually takes two to five years of on-the-job

training to become a journey-level mechanic. This means that a mechanic is skilled enough to perform difficult repairs. However, graduates of college training programs are often able to advance to the journey-level after only a few months on the job.

With an additional year of training, journey-level mechanics can specialize in a challenging area, such as transmission repair. However, they can specialize in areas that do not require all-around knowledge of auto repair in less time. Experienced mechanics with leadership ability sometimes advance to shop supervisor or service manager. Those who work well with customers may become service estimators. Some open their own repair shops.

Technical Education: 57 Credits

<input type="checkbox"/>	AUTO 1000	Orientation and Safety	.....	1
<input type="checkbox"/>	AUTO 1010	General Auto Service	.....	2
<input type="checkbox"/>	AUTO 1167	Vehicle Electronics	.....	5
<input type="checkbox"/>	AUTO 2005	Supervised Internship I	.....	2
<input type="checkbox"/>	AUTO 2006	Supervised Internship II	.....	2
<input type="checkbox"/>	AUTO 2007	Supervised Internship III	.....	2
<input type="checkbox"/>	AUTO 2119	Engine Repair and Service	.....	6
<input type="checkbox"/>	AUTO 2129	Automatic Transmission Condition	.....	6
<input type="checkbox"/>	AUTO 2135	Manual Drive Train System and Service	.....	4
<input type="checkbox"/>	AUTO 2145	Suspension and Steering System Service	.....	4
<input type="checkbox"/>	AUTO 2159	Brake System and Service	.....	4
<input type="checkbox"/>	AUTO 2164	Chassis Electrical Systems	.....	3
<input type="checkbox"/>	AUTO 2166	Starting and Charging Systems	.....	2
<input type="checkbox"/>	AUTO 2175	Automotive Climate Control and Service	.....	4
<input type="checkbox"/>	AUTO 2183	Fuel and Ignition Management Systems	.....	6
<input type="checkbox"/>	AUTO 2187	Automotive Computer Systems and Driveability	.....	4

General Education/MnTC Requirements: 15 Credits

Fifteen general education credits of Minnesota Transfer Curriculum (MnTC) are required. Recommended courses include:

<input type="checkbox"/>	ENGL 1105	Composition I	.....	4
<input type="checkbox"/>	MATH 1500	Mathematical Ideas	.....	3
<input type="checkbox"/>	SOSC 2000	Sociology of Work	.....	4
	MnTC General Education Elective	.....	.....	4

Also see: Automotive Technician diploma

Start Dates

Fall Semester.....August

Faculty Contact

[John Johnson](#).....763-576-4067
[Dave Larson](#).....763-576-4019

For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu



(continued)

2016-2017

Automotive Technician

Associate in Applied Science (AAS) Degree

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	AUTO 1000..... 1	AUTO 2005 2
	AUTO 1010..... 2	AUTO 2164..... 3
	AUTO 1167..... 5	AUTO 2166..... 2
	AUTO 2145..... 4	AUTO 2183..... 6
	AUTO 2159..... 4	MATH 1500..... 3
	TOTAL 16	MnTC Elective..... 4
	TOTAL 20	
2nd YEAR	Fall Semester	Spring Semester
	AUTO 2006 2	AUTO 2007 2
	AUTO 2119 6	AUTO 2135 4
	AUTO 2129 6	AUTO 2175 4
	ENGL 1105 4	AUTO 2187 4
	TOTAL 18	SOSC 2000 4
	TOTAL 18	



Program Information

The Anoka Technical College Automotive Technician diploma is a 60-credit program that includes technical and general education components. This degree provides the skills for trade entry plus the possibility to pursue a Bachelor of Arts (BA) degree with cooperating colleges and universities.

Prerequisites

Some courses may require an Accuplacer/ACT score or completion of basic math, basic English, and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The ability to make a quick and accurate diagnosis is one of the technician's most valuable skills. It requires good reasoning ability, as well as a thorough knowledge of automobiles. The technician may be required to determine serviceability, find specifications and service procedures in manuals and technical literature, repair or replace parts, give estimates of repair, and communicate with customers and trade personnel.

Most technicians perform a variety of repairs; however, some will specialize. Areas of specialization may include chassis service, drive train service, engine overhaul, fuel delivery and electrical system service, and air conditioning service. Other related areas may include merchandising, service/sales, and manufacturing representatives.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

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With an additional year of training, journey-level mechanics can specialize in a challenging area, such as transmission repair. However, they can specialize in areas that do not require all-around knowledge of auto repair in less time. Experienced mechanics with leadership ability sometimes advance to shop supervisor or service manager. Those who work well with customers may become service estimators. Some open their own repair shops.

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

- AUTO 1000 Orientation and Safety 1
- AUTO 1010 General Automotive Service 2
- AUTO 1167 Vehicle Electronics 5
- AUTO 2005 Supervised Internship I 2
- AUTO 2006 Supervised Internship II 2
- AUTO 2007 Supervised Internship III 2
- AUTO 2119 Engine Repair and Service 6
- AUTO 2129 Automatic Transmission Condition 6
- AUTO 2135 Manual Drive Train System and Service 4
- AUTO 2145 Suspension and Steering System Service 4
- AUTO 2159 Brake System and Service 4
- AUTO 2164 Chassis Electrical Systems 3
- AUTO 2166 Starting and Charging Systems 2
- AUTO 2175 Automotive Climate Control and Services 4
- AUTO 2183 Fuel and Ignition Management Systems 6
- AUTO 2187 Automotive Computer Systems and Driveability 4

General Education/MnTC Requirements: 3 Credits

Three credits of electives are required.

- AUTO 2130 Advanced Engine & Auto Transmission Diagnosis3
- OR**
- General Education/MnTC 3

Also see: Automotive Technician AAS degree

Start Dates

Fall Semester.....August

Faculty Contact

[John Johnson](#).....763-576-4067
[Dave Larson](#).....763-576-4019

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(continued)

2016-2017

Automotive Technician

Diploma

Sample Program Sequence:

Full Time

	Fall Semester	Spring Semester
1st YEAR	AUTO 1000..... 1	AUTO 2005 2
	AUTO 1010..... 2	AUTO 2164 3
	AUTO 1167..... 5	AUTO 2166 2
	AUTO 2145..... 4	AUTO 2183 6
	AUTO 2159..... 4	TOTAL 13
	TOTAL 16	
2nd YEAR	Fall Semester	Spring Semester
	AUTO 2006 2	AUTO 2007 2
	AUTO 2119 6	AUTO 2135 4
	AUTO 2129 6	AUTO 2175 4
	Gen Ed/MnTC <i>OR</i>	AUTO 2187 4
	AUTO 2130 3	TOTAL 14
TOTAL 17		

Program Information

The Anoka Technical College Logistics certificate is a 16-credit program designed for individuals wishing to enter the job market with the skills to perform a variety of job functions in the logistics and supply chain field. The program introduces logistics principles to students seeking first-time employment in supply chain management or for more experienced individuals desiring to expand their knowledge.

Logistics specialists evaluate and organize a firms' supply chain-the system that moves a product from supplier to consumer. Students learn to manage the entire life cycle of a product, which includes how a product is acquired, distributed, allocated, and delivered.

Graduates will:

- Have knowledge and understanding of analytical tools used in logistics
- Have knowledge and understanding to apply current local, state, federal, and international laws to large scale transport and storage of materials
- Be prepared to identify and work with ethical/legal issues related to purchasing and transportation of goods and material
- Have knowledge and skills to analyze potential opportunities in the management of supply chain
- Demonstrate an awareness of the importance of customer satisfaction.

Prerequisites

None.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS) degree, diploma, or certification must meet the grade-point average (GPA) of 2.0 or higher. Please contact your advisor for any further program graduation requirements.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx): (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The logistics marketplace is one of major opportunity. The globalization that is a by-product of extensive use of the internet has increased the need for a flexible logistics infrastructure to support a global supply network, supporting the movement of goods from a growing number of source locations to meet market demand. Professional standards, proper methodology such as sound logistics strategies and principles, will be emphasized through courses.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](http://mn.gov/deed/job-seekers/job-outlook/index.jsp) (http://mn.gov/deed/job-seekers/job-outlook/index.jsp).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 57 Credits

- LGA 1000 Transportation & Logistics Strategies..... 3
- LGA 1005 Logistics Network Management 3
- LGA 1010 Warehouse Administration 3
- LGA 1015 Safety Regulations 2
- LGA 1020 Logistics Internship..... 2
- TLIT 1005 Technology Fundamentals 3

Courses address Manufacturing Skill Standards Council Certified Logistics Associate Content Areas

Also see: Engineering, Manufacturing & Technology, and Automotive Technology

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

[Jay Wood](#)..... 763-576-4223
[Jerry Jaker](#)..... 763-576-4223

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Sample Program Sequence:

Full Time

1st YEAR	Fall Semester	
	LGA 1000.....	3
	LGA 1005.....	3
	LGS 1010.....	3
	LGA 1015.....	2
	LGA 1020.....	2
	TLIT 1005.....	3
	TOTAL	16



Course Descriptions

Please note: not all courses are offered every semester. Courses subject to change; please check your program guide sheet for the most up-to-date course information.

Accounting

ACCT 1015 Principles of Accounting I, 4 credits

This course is the first in a series. It is an introductory course that covers financial accounting concepts. The course focuses on analyzing business transactions and understanding their effects on the financial statements. The topics covered include financial statement preparation, general journal and ledger, accruals and deferrals, purchase and sales transactions, internal control and cash, current assets, fixed assets and depreciation, inventory valuation, current and long-term liabilities, and owners' equity. (Prerequisites: None)

ACCT 1025 Principles of Accounting II, 4 credits

This course is the second in a series. The topics covered in this course include cash flow statements, an introduction to managerial and cost accounting, and financial statement analysis. (Prerequisites: ACCT1015 Principles of Accounting I)

ACCT 1030 Payroll Accounting, 2 credits

This course covers various state and federal laws pertaining to the computation and payment of salaries, wages and other compensation arrangements. Topics covered include preparation of employment records, calculation of compensation under a variety of situations, payroll registers, employee earnings records, journal entries, and state and federal employment reports. (Prerequisites: None)

ACCT 1035 Income Tax I, 3 credits

This course provides an explanation and interpretation of the Internal Revenue Code as applied to basic individual income tax returns. Material covered includes filing requirements, gross income inclusions and exclusions, itemized deductions, employee expenses, personal business expenses, tax credits, and Minnesota state taxes for individuals. The use of tax software will also be included in this course. (Prerequisites: none)

ACCT 1045 Tax Lab, 1 credit

This course will be administered as a tax lab run by the accounting students. Students must take a required training course and pass a test before being allowed to work in the tax lab. Students will sign up to work a minimum of two hours per week in the tax lab preparing and electronically filing federal and state tax returns for other students. The tax lab will operate as part of the Volunteers in Tax Assistance (VITA) program established by the IRS. Students will be supervised during lab time. (Prerequisites: ACCT 1040)

ACCT 1055 Computerized Accounting: Peachtree, 2 credits

This course uses Peachtree accounting software to introduce the use of computers to perform accounting functions including chart of accounts creation and maintenance, general journal entries, accounts receivable and accounts payable management, inventory procedures, and financial statement analysis. (Prerequisites: None)

ACCT 1065 Computerized Accounting: QuickBooks, 2 credits

QuickBooks software is used to demonstrate the capabilities of computerized accounting software. Program projects involve creating and maintaining computerized accounting systems to perform accounting functions including chart of accounts creation and maintenance, general journal entries, accounts receivable and accounts payable management, inventory procedures, and financial statement analysis. (Prerequisites: None)

ACCT 1075 Computerized Accounting: Microsoft Dynamics GP, 2 credits

This course uses Microsoft Dynamics GP (formerly Great Plains) accounting software to introduce the use of computers to perform accounting functions including chart of accounts creation and maintenance, general journal entries, accounts receivable and accounts payable management, inventory procedures, and financial statement analysis. (Prerequisites: None)

ACCT 1085 Construction Accounting, 2 credits

This course focuses on business transactions that affect construction-related businesses like electricians, plumbers, excavating, contractors, etc. The course begins with an overview of the accounting process, the basic rules of debit/credit, and basic financial statement analysis. The rest of the course is specifically oriented to construction related issues. By the end of the course, students will be able to analyze various transactions, determine the proper accounting treatment, and input the transactions into accounting software. No prior accounting experience or knowledge is required. (Prerequisites: None)

ACCT 1100 Cost Accounting, 3 credits

Cost accounting is concerned with the use of accounting data to plan and evaluate operations and personnel of the firm. The focus is on planning, decision-making, and control by the organization and on the accounting systems that assist managers in their decisions. Course topics include cost concepts, cost volume profit analysis, differential analysis, cost estimation and regression analysis, job costing, process costing, activity based costing, service department allocation, joint costs and by-products, budgeting, transfer pricing, and variance analysis. (Prerequisites: ACCT 1025)

ACCT 1110 Income Tax II, 3 credits

This course provides a working knowledge of advanced federal income tax topics including depreciation, business use of home, income from rentals and royalties, partnerships, S-Corporations, and estates and trusts. Basic corporate tax returns are also discussed. (Prerequisites: ACCT 1035)

ACCT 1120 Intermediate Accounting I, 3 credits

This course will explore accounting as a process of measurement and communication of economic data with an emphasis on the techniques of recording, classifying, measuring, and reporting economic data. The primary topics covered include a review of the accounting process, preparation of financial statements, time value of money concepts, income measurement, cash and receivables, and inventories. (Prerequisites: ACCT 1025)



ACCT 1130 Intermediate Accounting II, 3 credits

This course is a continuation of ACCT 1120 with an emphasis on accounting requirements and procedures that relate to operational assets, investing activities, current liabilities and contingencies, bonds and long-term notes, leases, deferred income taxes, shareholders equity, share-based compensation, earnings per share, accounting changes and error corrections, and advanced cash flow analysis. (Prerequisites: ACCT 1120)

ACCT 1160 Advance QuickBooks, 2 credits

This course is a preparatory course for the Certified QuickBooks User Exam. The Certified QuickBooks User designation is conferred by Intuit. The course topics include: QuickBooks setup, QuickBooks utilities and general product knowledge, and the QuickBooks processes involving list management, items, sales, purchases, payroll reports, basic accounting, and customization. (Prerequisites: ACCT 1015 and ACCT 1065)

ACCT 1170 Advanced Payroll Accounting, 2 credits

This course covers the skills and body of knowledge required of payroll professionals and functions as a preparatory course for the Fundamental Payroll Certification (FPC) exam. FPC certification is conferred by the American Payroll Association (APA). The course content covers the advanced study of payroll concepts, paycheck calculations, fringe benefits, payroll reporting and employment taxes, record keeping and payroll practices, payroll accounting, and management and administration. (Prerequisites: ACCT 1015 and ACCT 1030)

ACCT 1200 Bookkeeper Certificate Preparatory Course, 3 credits

This course serves as a preparatory course for the Certified Bookkeeper exam. Certification is conferred by the American Institute of Professional Bookkeepers (AIPB). The course material includes adjusting entries, error correction, payroll, depreciation, inventory, internal controls, and fraud prevention. (Prerequisites: ACCT 1025, ACCT 1030, and ACCT 1035)

ACCT 1210 Registered Tax Return Preparer, 3 credits

This course is a preparatory course for the Registered Tax Return Preparer (RTRP) Competency Test. RTRP certification is conferred by the Internal Revenue Service (IRS). The course topics include filing status, filing requirements, exemptions, income, adjustments to income, itemized deductions, credits, gain/loss on sale of assets, other taxes like Alternative Minimum Tax, self-employment tax, and penalties. (Prerequisites: ACCT 1110)

ACCT 1225 Accreditation in Accountancy Preparatory Course, 3 credits

This course serves as a capstone course covering financial accounting and financial statement preparation, business consulting services, taxation, business law, and ethics and professional conduct. It will also prepare the student for the ACAT Comprehensive examination for Accreditation in Accountancy. The ACAT exam is the required exam for state licensure as a Registered Accounting Practitioner (RAP). For students not taking the ACAT exam, this course serves as a capstone course for review and will require students to confront and resolve

accounting problems by integrating and applying skills and techniques in previous accounting courses.

Administrative Specialist

ADSC 1003 Introduction to Keyboarding and Speedbuilding, 2 credits

This course emphasized fundamental keyboarding skills as well as technique. Touch keyboarding is introduced and/or reviewed covering both alphabetic and figure keys. Speed and accuracy development is stressed and daily practice is expected. (Prerequisites: None)

ADSC 1006 Business Law, 4 credits

Business Law is an introduction to the principles of law as they apply to citizens and businesses. Topics include the civil and criminal court systems, contracts, Uniform Commercial Code, bailments, negotiable instruments, agency and employment, consumer protection laws, ethics, cyberlaw, environmental law, and employment discrimination. On-line activities will be included in the course. (Prerequisites: None)

ADSC 1010 Keyboarding I, 3 credits

Keyboarding I covers "touch typing" skill developed and introduces basic word processing skills. The primary focus is on increasing the speed and accuracy of the keyboarding skills from whatever skill level the student already has developed. In addition, students will learn basic formatting techniques for simple business documents such as letters, memos, tables, and reports. Proofreading techniques will also be introduced. (Prerequisites: COMP 0100 or 25 WPM keyboarding skills)

ADSC 1021 Keyboarding II, 3 credits

Keyboarding II is a continuation of Keyboarding I with emphasis on building even greater speed and accuracy in keyboarding skill. In addition, advanced formatting techniques and advanced word processing skills will be practiced. Documents produced include multi-page reports and letters, complex tables, and specialized business documents such as newsletters and forms. Continued proofreading practice is also included in this course. (Prerequisites: ADSC 1010)

ADSC 1025 Keyboarding Skillbuilding, 2 credits

Keyboarding Skillbuilding is an advanced keyboarding course designed to increase keyboarding speed and accuracy to employment levels of 45+ net words per minute (nwpm). (Prerequisites: ADSC 1010 or equivalent keyboarding speed of 35 nwpm proven by testout with the instructor)

ADSC 1031 Business English Skills, 3 credits

This course is designed to provide an in-depth study of English as used in a business setting. This review will include the use of many practical applications of grammar, word, and language mechanics (punctuation, capitalization, spelling, etc.). (Prerequisites: ENGL 0101 or appropriate English assessment score; READ 0900 or appropriate reading assessment score or concurrent enrollment)

ADSC 1042 Applied Medical Terminology for Scribing, 2 credits

This course covers word analysis, spelling, pronunciation, and usage of word roots, prefixes, suffixes, and abbreviations common to the



medical profession. Emphasis will be placed on diagnosis, procedure, pharmaceutical, and laboratory terms. Medical terminology will be applied to the human body system and reviewed by practicing real-time scribing of medical records from dictation into the electronic health record. (Prerequisites: HITM 1110 or HLTH 1040)

ADSC 1045 Administrative Office Procedures, 4 credits

This course examines the role and responsibilities of the office professional. This course covers filing rules, records management procedures, transcription, telephone etiquette, setting up travel arrangements, compiling itineraries, producing trip expense reports, creating business documents including basic letters, memos, reports, notices, agendas, and minutes of meetings. The course also includes time management principles and the preparation and presentation of researched information utilizing software and verbal presentation skills. (Prerequisites: None)

ADSC 1054 Office Bookkeeping, 4 credits

This course covers an introduction to fundamental accounting principles with the primary focus on bookkeeping techniques and practices. Analyzing business transactions, recording transactions using general ledger software, cash and banking procedures, employer and employee payroll taxes, the basic financial statements, and completing the accounting cycle will also be covered. (Prerequisites: None)

ADSC 1055 Electronic Health Records, 2 credits

This course emphasizes essential computer concepts important for the successful use of computers in any medical career setting. The history and standards for electronic health records (EHR) will be examined, and simulated exercises with a fully functional electronic health records program will be completed. (Prerequisites: None)

ADSC 1064 Government, Courts & Criminal Law, 3 credits

This course begins with a review of the U.S. Constitution and the branches of government and continues with an introduction to the state and federal court systems, pleadings, and court procedures. The second half of the course covers types and classifications of crimes, criminal statutes, investigative procedures, Constitutional rights of the defendant, pretrial and trial procedures and documents for juveniles and adults, and sentencing patterns. (Prerequisites: none)

ADSC 1075 Corporate Law, Collections & Bankruptcy, 3 credits

The first half of this course covers types of business organizations, creation of a corporation, preparation of corporate documents, administration of corporate meetings, procedures for amending and dissolving a corporate structure and Intellectual Property. The second half covers debtors' rights and creditors' remedies under the Uniform Commercial Code, the collection process, and bankruptcy law. (Prerequisites: ADSC 1010 and COMP 1000)

ADSC 1085 Probate & Real Estate Law, 4 credits

During the first half of this course, the focus is on real estate law as it applies to a residential transaction. It includes the fundamentals of real estate law and the preparation of real estate documents. The second half of the course covers estate planning (wills, trusts, etc.) and estate administration (probate court). Conservatorships and guardianships are also included. (Prerequisites: COMP 1000)

ADSC 1095 Family Law & Civil Litigation, 4 credits

The focus of this course is on the terminology, documents, and legal procedures used in family law and other civil litigation. The course includes marital dissolution, adoption, paternity, personal injury, product liability, medical malpractice, workers' compensation, and liquor liability using standard court procedures and alternate dispute resolution. (Prerequisites: COMP 1000)

ADSC 1100 Legal Research, Citations, & Office Procedures, 4 credits

This course is designed to integrate legal office tasks into the electronic office setting. It includes law office personnel and facilities, legal ethics, filing and reminder systems, time and billing records, client relationships, communications methods, office equipment and supplies. This course is also an introduction to legal research. It includes finding the law and citing the law. (Prerequisites: ADSC 1010 and COMP 1000)

ADSC 1111 Legal Transcription, 2 credit

This is a transcription course which involves transcribing dictated material into usable documents. In addition, the course will cover basic formatting techniques for letters and legal pleadings. Emphasis is on the development of accuracy, proofreading, and correcting skills. (Prerequisites: COMP 1000)

ADSC 1120 Legal Transcription II, 2 credits

This is an advanced legal transcription and keyboarding course. Students will prepare a variety of legal documents. In addition, the course will cover basic formatting techniques for simple business documents such as tables and reports. Emphasis is on advanced editing skills, speed, and accuracy. (Prerequisites: ADSC 1111)

ADSC 1135 Legal Administrative Assistant Internship, 2 credits

This course is designed to provide the student with a purposeful occupational experience in a legal setting. Each internship is individually arranged to allow the student to apply classroom skills to an on-the-job situation. (Prerequisites: Completion of Legal Administrative Assistant program and instructor approval)

ADSC 1142 Integrated Software Applications, 4 credits

This course takes a project-based approach to teaching the integrating capabilities of Microsoft Office software while emphasizing applying critical-thinking skills to business situations. Previously learned software techniques; communications skills in the areas of spelling, grammar, punctuation, and formatting; and decision-making capabilities are utilized in the course as well. The class takes a simulation approach that requires problem-solving in the areas of appropriate choice of message format and software use, including cloud and collaboration tools. (Prerequisites: None)

ADSC 1162 Microsoft PowerPoint, 2 credits

This course is an in-depth study of Microsoft PowerPoint covering creating and editing a presentation with pictures, shapes, and WordArt. Also covered is reusing presentation, adding media and animation, and navigating a presentation using hyperlinks and action buttons. The class will also explore customizing slide, handout, and notes masters and modifying a presentation with customized text boxes, SmartArt,



and shapes. Appropriate presentation design concepts are reviewed. (Prerequisites: None)

ADSC 1171 Microsoft Excel, 2 credits

This course offers an in-depth presentation of functionality of Microsoft Excel in order to acquaint student with the proper procedures to create worksheets suitable for coursework, professional purposes, and personal use. The course uses an exercise-oriented approach that allows learning by doing. (Prerequisites: None)

ADSC 1181 Microsoft Access, 2 credits

This course is an in-depth study of Microsoft Access that covers creating and maintaining a database along with creating simple tables, queries, reports and forms. More advanced techniques for creating complex queries and customized reports and forms will also be covered. (Prerequisites: None)

ADSC 1196 Microsoft Word, 4 credits

This course covers utilization of the latest version of Microsoft Word software to perform word processing applications. This is an intensive course that covers both basic and advanced features of the software package. The concepts and applications taught in the course will promote decision making, problem solving, and critical thinking. (Prerequisites: ADSC 1010 or equivalent)

ADSC 1206 Written Business Communications, 4 credits

This course covers the process of creating effective business messages. Communication skills will be developed by composing business correspondence. Proper grammar, spelling, punctuation, and capitalization rules will be reviewed. Projects will focus on effective writing with an emphasis on positive, negative, informative, and persuasive messages. Writing for technology applications such as e-mail, social media, and blogs is included along with job-search documents including a resume and cover letter. (Prerequisites: ADSC 1031)

ADSC 1246 HIT Professional Practice Experience II, 2 credits

This is the second of two HIT professional practice experiences. It is designed to provide the advanced student with a 90-hour experience external to the college at a health care organization within the Minneapolis/St. Paul metropolitan area. Principles of health information technology are applied through observation, participation, and application of a variety of health information technology functions. Working under the supervision of a qualified health information professional, the student achieves objectives developed and documented by the college that are directly related to the clinical site which the student is assigned to. (Prerequisites: Successful completion of first three semesters of HIT program and instructor permission)

ADSC 1252 Professional Practice for Coding Specialists, 3 credits

This is an advanced level course providing the student with more hands-on experience with coding from medical records at various health care facilities. Students will be required to travel to various health care facilities within the Metro area. (Prerequisites: ADSC 1240 and ADSC 1249)

ADSC 1283 Medical Office Procedures, 4 credits

This course introduces the concepts and skills needed for a successful career as a medical administrative professional and explores the use of a medical practice management software (scheduling, billing, and insurance) and electronic health records software, including entering front office, clinical care, and coding information. Other topics include various claim forms, financial policies and collections, the Health Insurance Portability and Accountability Act (HIPAA), office professionalism, and customer service skills. (Prerequisites: None)

ADSC 1340 Business Job Seeking Skills, 1 credit

The student will develop key job-search skills needed for a successful self-directed job search as well as the critical attitudes needed for job keeping. A resume, application letters, and other employment-related letters and documents will be prepared. (Prerequisites: None)

ADSC 1341 Electronic Career Search, 1 credit

In this course, students will develop a Web-based portfolio designed to create a living showcase of their education, career, and personal achievements. Students will digitally document and share their education, employment history, activities and goals with potential employers. It is an ideal tool to support job applications, college or graduate admissions, and competitions. (Prerequisites: None. Keyboarding and basic computer skills recommended)

ADSC 1451 Technology Tools for the Workplace, 3 credits

This course is designed to prepare students to become knowledgeable and comfortable in the use of current and new technologies used in personal and work setting. Students will learn how to utilize specific technologies that can enhance administrative assistant or office manager careers. The course will explore a variety of software, mobile, and Internet technology tools that are useful for effectively managing administrative and collaborative tasks in a business setting. Types of technologies explored include calendar, organizational, collaboration, publishing, and professional development applications. (Prerequisites: None)

Architectural and Construction Technology

ARCH 1000 Residential Construction, 2 credits

Techniques for residential construction in Minnesota are the focus of this course. Building materials and construction methods will be covered through lecture and illustrated examples. Building systems covered will be the footing, foundation, floor framing, wall framing, and roof framing moisture protection and windows and doors. (Prerequisites: None)

ARCH 1002 Construction Print Reading, 2 credits

This course covers the knowledge required for a drafter or estimator to interpret residential and commercial construction drawings. Topics covered include architectural floor plans, elevations, sections, details and material schedules. Also covered are drafting symbols, material abbreviations, reading an architectural scale ruler, construction calculations and dimensioning standards for the construction industry. (Prerequisites: None)



ARCH 1015 Commercial Construction, 2 credits

Techniques for constructing light commercial to high-rise construction is this course focus. Building materials and construction methods will be covered with lecture and illustrated examples. Building systems covered are footings, foundations, masonry, steel framing, precast concrete, curtain wall, flat roof construction, hollow metal doors, aluminum window frames and moisture protection. (Prerequisites: None)

ARCH 1031 Building Systems, 2 credits

The architectural technician needs to understand all components of a building, including: plumbing, heating/air conditioning, electricity and insulation R-values. An overview of each component will be covered through lecture, illustrated examples and projects. (Prerequisites: ARCH 1000)

ARCH 1035 Green Building Strategies, 1 credit

Understanding the concepts of green building is essential for anyone in the architecture/construction industry. Many municipalities and non-profit organizations have developed rating systems to quantify the level of green building strategies used in construction projects. The best known rating system is LEED (Leadership in Energy & Environmental Design). The LEED green building rating system will be the outline to discuss specific strategies for green building construction techniques. Construction strategies for commercial and residential projects will be discussed. (Prerequisites: None)

ARCH 1040 Residential Graphics, 1 credit

The architectural technician must understand the basic skills of manual drafting that will lead them into computer-aided drafting. This course covers drafting tool use, line types, lettering and sketching of residential drawings. Students will come away with a good understanding of two-dimensional drawing techniques. (Prerequisites: None)

ARCH 1045 Commercial Graphics, 1 credit

This is a continuation of ARCH 1040 Residential Graphics. Students will produce commercial construction details using manual drafting, sketching techniques or AutoCAD software. The focus is the students understanding of commercial building materials and connections. (Prerequisites: ARCH 1040)

ARCH 1051 Architectural CAD I, 3 credits

The architectural technician must gain mastery of computer drafting. This is the first course required to gain mastery. You will become familiar with the latest version of AutoCAD software. The course will cover all the basics to draw and edit architectural geometry, place text on your drawing, perform dimensioning, and plot a drawing using AutoCAD software. By the end of this course you will be able to draw simple floor plans. (Prerequisites: None)

ARCH 1052 Architectural CAD II, 3 credits

You will begin to see the power of AutoCAD software when taking this course. This course is a continuation of Architectural CAD I. You will continue to gain mastery of the draw and edit commands, but also you will become familiar with advanced commands the architectural technician will use on the job. This course will focus on the use of

paper space/model space for architectural drafting applications. The drawing projects will be residential plans, sections, and exterior elevations. (Prerequisites: ARCH 1051)

ARCH 2005 Residential CAD Studio, 4 credits

Producing residential construction drawings used by a contractor to obtain bids and building permit using AutoCAD software is the focus of this course. Analyzing home design and implementing wood framing technology will also be a major focus of this drafting course. AutoCAD skills leading to student proficiency will be stressed. (Prerequisites: ARCH 1000 and ARCH 1052)

ARCH 2025 Revit Architectural 3D CAD, 2 credits

Revit is the up and coming software for "building information modeling" in the architectural industry. The student will be exposed to the Revit software by drawing a residential project. The course focus will be understanding drawing and editing commands, manipulating views, inserting 3-D objects, rendering, and preparing drawing sheets for construction documents. (Prerequisites: None)

ARCH 2027 Intermediate Revit Architecture 3D CAD, 2 credits

This course is designed to build on the fundamental understanding and skills of a beginning Revit Architecture user. The primary objective of this intermediate course is to expand the student's knowledge of the power of BIM (building information modeling). The student will complete a residential project and all the required software settings and sheet set up for construction drawings. Also, 3-D modeled rendering will be emphasized and the student will create a simple walk through of the project. (Prerequisites: ARCH 2025 or by instructor approval of prior Revit Architecture experience)

ARCH 2029 Advanced Revit 3D CAD, 3 credits

This course will focus on the creation of building information model for a commercial building, resulting in a construction drawing set. Topics covered include advanced modeling commands, linking CAD drawings, worksets, rendering techniques and the creation of 3D family objects. (Prerequisites: ARCH 2027)

ARCH 2030 Building Codes, 1 credit

The construction building code provides a framework for the architectural design process. A code review must be performed to ensure conformity to life and safety issues. The focus of this course will be the International Building Code and Minnesota Accessibility Code. Course topics will include occupancy groups, occupancy loads, building area, building height, types of construction, means of egress and accessibility dimensional clearances. (Prerequisites: ARCH 1015)

ARCH 2055 Commercial CAD Studio, 3 credits

This course will focus on the creation of a building information model for a commercial building, resulting in a construction drawing set. Topics covered include advanced modeling commands, linking CAD drawings, worksets, rendering techniques and the creation of 3D family objects. (Prerequisites: ARCH 2027)

ARCH 2070 Commercial Design, 2 credits

The thought process of an architect during the design phase of commercial construction will be the focus of this course. The students



will be exposed to building design, office space planning and major architectural history movements that have shaped the American architectural scene. Other topics include scale, proportion, circulation patterns, and exterior building massing. The student will take from the course an understanding of the architectural design process and terminology used when discussing architectural design. (Prerequisites: ARCH 1015)

ARCH 2085 Structural Technology, 3 credits

This course will focus on the basic concepts of building structures for wood and steel structural systems. Topics covered include examining section and material properties, calculating live load and dead load, calculating maximum moment and maximum shear in beams, and calculating maximum beam deflection. Calculation results will determine the size of the joist, beam or column to be selected for a building. Other topics include interpreting structural drawing details, analyzing welded and bolted connections, and drafting structural framing and plans and connection details. (Prerequisites: ARCH 1000 and ARCH 1051)

American Sign Language

ASL 1000 Deaf Studies/Culture, 3 credits

This course is designed to introduce and help students understand the Deaf community as a linguistic and cultural minority group. The role of Deaf people in the larger society, political activism, laws, access to information, educational philosophies and methods, and communication systems will be introduced. Students will learn the differences between Deaf; deaf, late-deaf, oral deaf, and hard of hearing. The course also examines the historical treatment of deaf people as well as educational influences, causes, and treatment of deafness. Students will learn about sign interpreters, oral interpreters, and transliterators and how to hire an interpreter. (MN Transfer Goal 7) (3 Credits Lecture/0 Credits Lab)

ASL 1100 American Sign Language I, 3 credits

This MN Transfer course introduces students to American Sign Language, the visual/gestural language used by the Deaf community, and aspects of Deaf culture. The differences in communication preferences used by deaf individuals will be explored, as well as techniques to best communicate with people who are hard of hearing. The student will learn how to articulate all the letters and numbers; develop accuracy in regard to letter formation, palm orientation and hand position; fingerspell words clearly and accurately; recognize words and numbers. (MN Transfer Goal 8) (3 Credits Lecture/0 Credits Lab)

Automotive Technician

AUTO 1000 Orientation and Safety, 1 credit

This course covers Occupational Safety and Health Administration (OSHA) safety requirements, along with general shop procedures needed before entering the automotive lab. Orientation will include shop policies, location and utilization of appropriate safety equipment, including but not limited to eye-wash stations, fire extinguisher and exhaust ventilation systems. (Prerequisites: None)

AUTO 1010 General Automotive Service, 2 credits

This course covers shop procedures and policies that are specific to

the Anoka Technical College Automotive Shop as well as the typical automotive service facility. Proper handling and disposal of Hazardous Materials and general shop safety procedures to be used while servicing vehicles will be explained and demonstrated. In addition, basic automobile systems and maintenance, automotive tools, vehicle lifts, jacking equipment, and the use of precision measuring devices will be addressed. Finally, the use of automotive service information and other resources will be explained.

NOTE: Since this course addresses Anoka Technical College Automotive shop practices, safety procedures, and policies, this course is a requirement for all automotive students. (Prerequisites: None) (Co-requisites: AUTO 1167, AUTO 2145, and AUTO 2159)

AUTO 1167 Vehicle Electronics, 5 credits

This course reviews the fundamentals of electricity and electronics as applied to the automotive industry. Topics addressed include the principles and theory of electricity, electrical terminology, electro-magnetism; including motors and induction, the principles of semi-conductors, basic automotive computer operation, including the operation of sensor, output or control signals, and data communication circuits. Also included in this course is the performance of accurate electrical measurements using a Digital Multi-meter (Volts, Ohms, Amps) and other appropriate tools; diagnosis and performance of electrical wiring repairs; and the understanding electrical system failures and basic diagnostic principles. Reading and interpreting vehicle service manual or electronic service information electrical wiring schematics will also be covered. (Prerequisites: None)

AUTO 2005 Supervised Internship I, 2 credits

Students will work a minimum of 20 hours per week at an automotive service, repair, or other automotive facility as approved by ATC staff prior to the start date of the internship. Students will service customer vehicles, perform tests, diagnosis, and repair tasks that are consistent with coursework the student has received (or prior work experience), and work with a mentor when appropriate. (Prerequisites: AUTO 1010, AUTO 1166, AUTO 2145, AUTO 2155) (Co-requisites: AUTO 2166, AUTO 2183, and AUTO 2164, or instructor approval)

AUTO 2006 Supervised Internship II, 2 credits

Students will work in a sponsoring automotive facility or must be approved by the instructor prior to the start date of the internship. Students will service customer vehicles and perform tasks that are consistent with previous courses or prior work experience (Prerequisites: AUTO 1010, AUTO 1166, AUTO 2145, AUTO 2155, AUTO 2166, AUTO 2183, and AUTO 2164, or instructor approval)

AUTO 2007 Supervised Internship III, 2 credits

Students will work in a sponsoring automotive facility or must be approved by the instructor prior to the start date of the internship. Students will service customer vehicles and perform tasks that are consistent with previous courses or prior work experience. (Prerequisites: AUTO 1010, AUTO 1166, AUTO 2145, AUTO 2155, AUTO 2166, AUTO 2183, and AUTO 2164, or instructor approval)

AUTO 2130 Advanced Engine & Automatic Transmission Diagnosis, 3 credits

This course covers the theory, operation, and diagnosis of advanced



powertrain systems, including advanced valve timing systems; variable displacement systems; electronic valve bodies; and service procedures associated with major and hybrid engine/transmission repair. (Prerequisite: AUTO 1000; Co-requisites: AUTO 2119, 2129)

AUTO 2119 Engine Repair & Service, 6 credits

This course covers the theory of operation and common service procedures associated with major engine repair. This includes the standard measurements of the cylinder head and block assemblies to determine if machine work is needed, and exploration of how the new engine technology is adapted to hybrid vehicles. (Prerequisites: None)

AUTO 2129 Automatic Transmission Conditions, 6 credits

This course covers the construction and operational theory of automatic transmissions/transaxles; the complete disassemble and reassemble of two different automatic transmission/transaxles with all clutch pack clearances; end-play measurements; including proper use of special disassemble and reassembly tools; and access and interpret scan tool use and diagnostic procedures for evaluating the automatic transmission data. (Prerequisites: AUTO 1000, 1010, and 1167)

AUTO 2130 Advanced Engine & Automatic Transmission Diagnosis, 3 credits

This course covers the theory, operation, and diagnosis of advanced powertrain systems, including advanced valve timing systems; variable displacement systems; electronic valve bodies; and service procedures associated with major and hybrid engine/transmission repair. (Prerequisite: AUTO 1000; Co-requisites: AUTO 2119, 2129)

AUTO 2135 Manual Drive Train Systems & Service, 4 credits

This course covers the operational theory and repair procedures of the drive train and axles of passenger cars and light duty trucks. Includes front drive and rear drive vehicles. Lab experiences provide an opportunity to service vehicles. (Prerequisites: AUTO 1010, AUTO1166, or instructor approval)

AUTO 2145 Suspension & Steering System Service, 4 credits

This course covers the operational theory and repair of automotive suspension and steering systems. Two-wheel and four-wheel alignment theory, on-vehicle processes, and adjustments will be addressed. Theory and service procedures for front and rear suspension systems will be covered, as well as manual, power, and steering linkage systems. Lab experiences will provide an opportunity to service and align the suspensions of a variety of vehicles. (Prerequisites: None) (Co-requisites: AUTO 1010, AUTO 1166, and AUTO 2155 or Instructor approval)

AUTO 2159 Brake Systems & Service, 4 credits

This course covers the operational theory and repair of automotive brakes and braking systems; principles of hydraulics, disc, drum, and parking brake systems; and Anti-lock Brake Systems (ABS) and Traction Control (TC) basics. Lab experiences will provide an opportunity to service a variety of vehicles and systems. (Prerequisites: None) (Co-requisites: AUTO 1000, AUTO 1010, AUTO 1167, and AUTO 2145)

AUTO 2164 Chassis Electrical System, 3 credits

This course addresses the description, operation, diagnosis, and service procedures related to chassis electrical systems. This includes vehicle lighting, instrumentation, windshield wiper, power door locks, windows, and mirrors and passive restraint systems. Major vehicle accessories and body control module integration & operation will also be covered. Finally, electrical circuit repairs and the understanding and interpreting of electrical system service information and schematics will be covered. (Prerequisites: AUTO 1010 and AUTO 1166 or instructor approval)

AUTO 2166 Starting & Charging Systems, 2 credits

This course begins with a review of electrical theory, and application. The description, operation, diagnosis, and service procedures related to automotive batteries will be reviewed. The description, operation, diagnosis, and various service procedures related to automotive cranking motors and charging systems will be covered. Also included are descriptions of the various circuits used to control starter motor operation and generator voltage regulation. Understanding and interpreting electrical system service information and schematics will also be addressed. (Prerequisites: AUTO 1010 and AUTO 1166, or instructor approval)

AUTO 2175 Automotive Climate Control & Service, 4 credits

This course covers the principles of automotive air conditioning and fundamental service procedures used to repair and maintain the system. Includes the certification process for refrigerant recovery. Lab experiences provide the opportunity to service vehicles. (Prerequisites: AUTO 1010, AUTO 1166, or instructor approval)

AUTO 2183 Fuel & Ignition Management Systems & Service, 6 credits

This course covers the description, operation, diagnosis, and service procedures related to automotive fuel, emission, and ignition systems and the interaction of these systems. The history and evolution of these vehicle systems will be addressed to provide a path to understand the technology currently in use. The automobile industries impact on emissions and the technology changes undergone to reduce these emissions is also addressed. Computer controls of these systems will be covered in detail as will the understanding and interpreting of driveability related service information, procedures, and schematics. (Prerequisites: AUTO 1010 and AUTO 1166 or instructor approval)

AUTO 2187 Automotive Computer Systems & Driveability, 4 credits

This course covers the theory and operating principles of automotive computer systems. Includes On Board Diagnostics (OBD) and scan tool usage. Lab experiences provide the opportunity to service vehicles. (Prerequisites: AUTO 1010, AUTO 1166, or instructor approval)

Biology

BIOL 1106 (MnTC 2, 3) Introduction to Biology, 4 credits

An introduction to biological scientific inquiry and methodology will be taught within a laboratory and lecture context. Cell biology topics will emphasize cell structure, function, and the biochemical processes of respiration, metabolism, and photosynthesis. The study of heredity



and genetics will focus on the molecular basis of inheritance, DNA, RNA, mitosis, meiosis, and DNA technology. Other topics include mechanisms and processes of evolution and an introduction to ecology. (Prerequisites: READ 0900 or appropriate placement score) (3 Credits Lecture/1 Credit Lab)

BIOL 2100 (MnTC 2, 3) Anatomy & Physiology I, 4 credits

Anatomy & Physiology I (A&P I) is a course designed to prepare students for advanced coursework required for health or allied healthcare educational pathways. This course emphasizes the anatomical and physiological organization and interrelationships of the major systems that comprise the human body. Building from the knowledge gained in Biology 1106, A&P I will focus mainly on the following systems: integumentary, musculoskeletal, nervous, endocrine, and sensory. Laboratory dissection, experiments, and computer-assisted instruction will provide students with the necessary foundation of knowledge required for successful transition into A&P II. (Prerequisites: BIOL 1106) (3 Credits Lecture/1 Credit Lab)

BIOL 2200 (MnTC 2, 3) Anatomy & Physiology II, 4 credits

Anatomy & Physiology II is a course that builds on the foundation of Anatomy & Physiology I to prepare students for advanced coursework required for Nursing and other Allied Health Care Programs. This course continues to examine the human body from an anatomical and physiological examination of the II systems: digestive, urinary, respiratory, circulatory, immune, and reproduction. Students will gain a comprehensive understanding of human gross anatomy by participating in animal dissection, lab experiments, and computer-assisted instruction, while examining the interrelationships of the physiology that drives the human body. (Prerequisites: BIOL 1106 and BIOL 2100) (3 Credits Lecture/1 Credit Lab)

BIOL 2106 (MnTC 2, 3) Microbiology, 4 credits

Microbiology is a science course designed to prepare students with a working knowledge of how microorganisms affect our daily life. Emphasis will be placed on the study of prokaryotic and eukaryotic microorganisms including bacteria, viruses, fungi, and other life forms. The study of growth, metabolism, reproduction, evolution and ecology of microorganisms will help the student to understand host-pathogen interactions, pathogenesis of disease, and immunological response. Microbiology research articles and case studies will be utilized to provide students with relevance into how microbes are used in such fields as Agriculture, Food Science, Horticulture, Nursing/Healthcare, Pharmacology, Biomedical Technology and National Security (i.e. Bioterrorism). (Prerequisites: BIOL 1106 Introduction to Biology) (3 Credits Lecture/1 Credit Lab)

Biomedical Equipment Technician

BMET 1200 Biomedical Equipment and Terminology, 2 credits

This course will cover test equipment used in the biomedical field. Electrical safety analyzers, defibrillator analyzers, and vital signs patient simulators will be demonstrated throughout the course. Terminology used in the biomedical field will be covered. (Prerequisite: ETEC 1201)

BMET 1301 Biomedical Networking, 2 credits

This course covers networking fundamentals for electronic engineering technicians and biomedical equipment technicians. Topics such as network layers, protocols, media, security, hardware, setup, and troubleshooting will be covered. The course introduces the safety, regulatory, and security requirements specific to networking mechatronic and biomedical equipment.

BMET 2012 Biomedical Instrumentation, 4 credits

This course covers theory and operations of medical test equipment. The course will introduce test and measurement equipment used for preventive maintenance, diagnosis and repair of medical equipment. A variety of biomedical transducers will be introduced. IEC 62353 (International Electrotechnical Commission) standards for electrical safety testing of medical devices will be discussed throughout the course. (Prerequisites: ETEC 1201)

Construction Estimating

CEST 1000 Construction Estimating I, 3 credits

The beginning responsibility of a construction estimator is preparing quantity takeoffs. This course will cover preparing quantity takeoffs for remodeling and new residential construction. The student will also be introduced to the use of cost guides. (Prerequisites: None)

CEST 1010 Construction Estimating II, 3 credits

This is continuation of CEST 1000 Construction Estimating I. This course will begin to focus on light commercial construction take off estimates. The student will continue to use cost guides and begin producing construction schedules. (Prerequisites: CEST 1000)

CEST 1020 Computer Estimating, 2 credits

The use of computer estimating software will be important to the construction estimator. Students will be using the most current industry based computer estimating software. (Prerequisites: CEST 1000)

CEST 1030 Project Management for Estimators, 2 credits

Project management is a necessary skill for the entry level construction estimator to advance in industry. The course will focus on scheduling and budgeting processes used during construction. The coordination and organization of necessary paperwork will also be emphasized. (Prerequisites: None)

CEST 1040 CAD Applications for Estimators, 2 credits

This course covers the software applications for navigating CAD (computer aided drafting) drawings. Topics covered include opening and printing CAD drawings, operating basic CAD drawing and modification commands, and CAD measurement commands used by Construction Estimators. The CAD software used in the course is AutoCAD and Revit Architecture. (Prerequisites: None)

Communications

COMM 1050 (MnTC 1, 2) Strengths and Wellness, 2 credits

This seminar will introduce students to their unique talents, and help them discover how best to use and develop talents in academics, career and life. Students will explore career paths, motivation, and examine personal strengths using StrengthsQuest tool and learn to develop life skills using the Five Essential Elements of Well-Being.



This course is designed to provide meaningful and relevant information to promote academic and life success. The course will benefit all learners. (Prerequisites: None)

COMM 1055 (MnTC 1, 2) Strengths and Wellness, 3 credits

This course will introduce students to their unique talents, and help them discover how best to use and develop talents in academics, career, and life. Students will explore career paths, motivation, and personal strengths using the StrengthsFinder or StrengthsQuest tool, and learn to develop life skills using the Five Essential Elements of Well-Being. This course is designed to provide meaningful and relevant information to promote academic and life success. (Prerequisites:None)

Computer Technology

COMP 0100 Basic Computer Keyboarding, 2 credits

Students taking this course will work on the development of basic keyboarding techniques using the touch method on the computer. Emphasis will be on learning the touch method of typing alphabetic, punctuation, function, and service keys. In addition, machine operating techniques and skill development will be included. Proofreading skills will be introduced. The keyboarding goal will be the attainment of a minimum rate of 20 words per minute for 3 minutes with accuracy. (Prerequisites: None)

COMP 1000 Introduction to Computers, 3 credits

Introduction to Computers is more in-depth than Computer Technologies for Communication. It covers the operation of the personal computer and provides an introduction to Windows. It includes word processing, electronic spreadsheets, databases, presentation graphics, communications, and desktop information management software. (Prerequisites: COMP 0100 or 25 words per minute keyboarding ability or equivalent)

COMP 1002 Computer Technologies for Communication, 2 credits

This course is designed for students with little or no computer experience. In this course students will learn how to use a variety of technologies to communicate with others. Included will be internet usage, accessing and critically evaluating internet resources, setting up and using e-mail accounts, word processing, presentation graphics, and spreadsheet development. Topics such as data privacy and the impact of information technology on society will be addressed. (Prerequisites: None)

Occupational Therapy Assistant

COTA 1000 Introduction to Occupational Therapy, 4 credits

This course is an overview of the occupational therapy profession and its role in a variety of systems and service models, including, but not limited to, health care, education, community, and social models, and how these models may affect O.T. service provision. Theoretical frame of reference and practice framework are introduced. Observation, interviewing, and group process skills are applied. This is a web supplemented course. (Prerequisites: ENGL 0101 or appropriate assessment score; READ 0900 or appropriate assessment score and Basic Math 0801 or appropriate assessment score. This course is restricted to the following major: Occupational Therapy Assistant

Program)

COTA 1100 Therapeutic Modalities I, 3 credits

This course covers basic understanding of relevant occupations and purposeful activities used in occupational therapy programs. These include, but are not limited to, fibers/leathercraft/music/ contemporary crafts with an emphasis on meaningfulness to the client to encourage participation and independence. An introduction of impairments and their impact on human occupation is addressed. Teaching techniques, activity analysis, activity adaptation, the importance of life-long learning, and maintenance of the O.T. service environment are incorporated into the course. (Prerequisites: ENGL 0101 or appropriate assessment score; READ 0900 or appropriate assessment score; and Basic MATH 0801 or appropriate assessment score. This course is restricted to the following major: Occupational Therapy Assistant Program)

COTA 1150 Therapeutic Modalities II, 3 credits

This course is a continuation of COTA 1100 and includes, but is not limited to, recreation, craft varieties, ceramic skills, and basic woodworking skills and rehabilitation technology. These activities are related to the domains of occupational therapy. Impairments and their impact on human occupation is addressed. This course will include a review of anatomy and physiology principles as they relate to activity analysis of everyday activities. (Prerequisites: COTA 1000, COTA 1100, HLTH 1005, and HLTH 1010)

COTA 1220 Pediatric Principles & Techniques, 4 credits

This course is designed to enable the student to understand various diagnostic categories occurring during the early years (birth to 21 years of age) and their impact on occupational performance. The students will review normal development and study deviations from the normal. The student is exposed to various evaluation tools and intervention techniques used in the pediatric setting. This is a web supplemented course. (Prerequisites: COTA 1000, COTA 1100, HLTH 1005, and HLTH 1010)

COTA 1255 Physical Dysfunction Principles & Techniques I, 3 credits

This course covers the occupational therapy assistants' role in the delivery of rehabilitation services for the individual with physical disabilities in acute care, rehabilitation centers, outpatient clinics, home health and long term care. The student is exposed to various occupational therapy techniques. Additional emphasis is placed on: range of motion, daily living skills, instrumental activities of daily living, adaptive equipment, cognition, driver's rehabilitation, transfers, architectural barriers, homemaking skills and assistive technology. This is a web supplemented course. (Prerequisites: COTA 1000, COTA 1100, HLTH 1005, and HLTH 1010)

COTA 1370 Special Topics in Occupational Therapy, 2 credits

Investigation of various topics related to the field of occupational therapy and the occupational therapy assistant. (Prerequisites: COTA 1150, COTA 1220, COTA 1255, COTA 2001, PSYC 1405, ENGL 1105 or ENGL 2105, COMP 1004, PSYC 1505, SPCH 1200 or SPCH 1500)

COTA 2001 Organization & Administration of an Activity Pro-



gram, 2 credits

This course is designed to familiarize the student with various organizational and administrative aspects required to direct and carry-out an activity program in a long term care facility, related health care agency, and community agencies. This is a web supplemented course. (Prerequisites: COTA 1000, COTA 1100, HLTH 1005, and HLTH 1010)

COTA 2010 Fieldwork Level I, 2 credits

This course is a supervised occupational experience at two different assigned fieldwork sites. The student will have the opportunity to interact with individuals who have various physical, mental, emotional, developmental and cognitive disabilities. Opportunities to develop observation, communication, and critical thinking skills will be provided. The student will observe and begin to participate in the overall activity program and/or delivery of occupational therapy services. The fieldwork experiences coincide with COTA 2200 Psychosocial Principles and Techniques and COTA 2255 Physical Dysfunction Principles and Techniques II. (Prerequisites: COTA 1150, COTA 1220, COTA 1255, COTA 2001, COMP 1004, PSYC 1405 and PSYC 1505, ENGL 1105 or ENGL 2105, SPCH 1200 or SPCH 1500 and current certification in CPR for the healthcare worker)

COTA 2011 Fieldwork Seminar I, 1 credit

Discussion of requirements and current topics related to COTA2010 Level I Fieldwork. The course also includes preparation and orientation for the Level 2 Fieldwork. (Pre-requisites: COTA1150, COTA1220, COTA1255, COTA2001, COMP1004, PSYC1405 and PSYC1505, ENGL1105 or ENGL2105, and SPCH1200 or SPCH1500)

COTA 2205 Psychosocial Principles & Techniques , 5 credits

This course investigates factors and conditions, which contribute to mental illness. Emphasis is on deficits displayed by the individual, outcomes of services, and relevant occupations used with various age groups. All aspects of the occupational therapy process are covered from initiation of services to discontinuation of services emphasizing the role of the OTA throughout the process. During class, students discuss case studies and occupational therapy approaches in addition to experiencing various group techniques used in psychosocial occupational therapy (O.T.). The course is coordinated with COTA 2010 Level I Fieldwork. (Prerequisites: COTA 1150, COTA 1220, COTA 1255, COTA 2001, PSYC 1405 and PSYC 1505, ENGL 1105 or ENGL 2105, COMP 1004, SPCH 1200 or SPCH 1500) (Co-requisites: PSYC 1605)

COTA 2255 Physical Dysfunction Principles & Techniques II, 3 credits

This course is a continuation of COTA 1255 Physical Dysfunction Principles and Techniques I. The student is exposed to various diagnostic categories and occupational therapy techniques. The student is encouraged to develop clinical reasoning skills as various case studies are discussed. The student will participate in a variety of experiential labs related to intervention techniques. Additional emphasis is placed on: documentation, reimbursement, and splint construction. The course is coordinated with COTA 2010 Level I Fieldwork. This is a web supplemented course. (Prerequisites: COTA 1150, COTA 1220,

COTA 1255, COTA 2001, PSYCH 1405 and PSYCH 1505, ENGL 1105 or ENGL 2105, COMP 1004, SPCH 1200 or SPCH 1500)

COTA 2410 Level II Fieldwork in Psychosocial Setting, 6 credits

A supervised Level II Fieldwork experience in a psychosocial setting. This is an eight-week full-time experience. Supervision is by a registered occupational therapist and/or certified occupational therapy assistant. Emphasis is placed on developing the skills/responsibilities expected of an entry-level occupational therapy assistant. The student must have a current CPR for the healthcare worker card. (Prerequisites: PSYC 1605, COTA 1370, COTA 2010, COTA 2011, COTA 2200, and COTA 2255) (Co-requisites: COTA 2420 and COTA 2450)

COTA 2420 Level II Fieldwork in Rehab Setting , 6 credits

A supervised Level II Fieldwork experience in a physical rehabilitation setting. This is an eight-week full-time experience. Supervision is by a registered occupational therapist and/or certified occupational therapy assistant. Emphasis is placed on developing the skills/responsibilities expected of an entry-level occupational therapy assistant. The student must have a current CPR for the healthcare worker card. (Prerequisites: PSYC 1605, COTA 1370, COTA 2010, COTA 2011, COTA 2200, and COTA 2255) (Co-requisites: COTA 2410 and COTA 2450)

COTA 2450 Fieldwork Seminar II, 1 credit

Students share their learning experiences from Level II Fieldwork with classmates. Students return to ATC for this seminar the last day of each eight week Level II Fieldwork Experience. (Co-requisites: COTA 2410 and COTA 2420)

Community Social Services**CSS 1010 Direct Service Professionalism, 3 credits**

This course provides an overview of the rights and protections of persons with disabilities and prepares the student to work in the direct service setting. Emphasis is placed on teamwork, communication and conflict resolution, working with families as well as diversity, confidentiality and advocacy issues. (Prerequisites: None)

CSS 1020 Physical/Developmental Supports I, 3 credits

This course compares and contrasts the community support models to former medical model. This course will guide the students in obtaining skills on how to support persons with various disabilities and explore augmentative and communication systems. This course will address specific support issues including common signs and symptoms of health concerns, standard precautions and blood borne pathogens, appropriate responses to emergency situations, basic medication concerns, and documentation techniques. In addition, students will learn about communication methods, relationship and sexuality issues, inclusion issues, and community resources for the individuals they will support. (Prerequisites: None)

CSS 1030 Person Centered Planning, 3 credits

This course will outline person centered planning and the utility of this process in translating personal choices, desires and strengths into a support plan. The students will review current laws and rules gov-



erning services to persons with disabilities. The student will demonstrate an ability to facilitate a group process using a person-centered approach. (Prerequisites: None)

CSS 1040 Facilitating Positive Behaviors, 3 credits

This course provides an overview of different challenging behaviors and provides methods and guidelines for correcting these behaviors. Additionally, this course explores how environmental factors like personal experiences and individual value systems affect decision making, behaviors, and responses to others actions. This course introduces various assessment tools that can be used to identify challenging behavior, develop intervention plans, and document client progress. (Prerequisites: None)

CSS 1550 Social Service Projects, 3 credits

This course will give students the opportunity to critically examine a social problem, then work as a group to create and implement a program that addresses the problem. Students will gain knowledge in assessing the problem, researching, designing, implementing and evaluating the chosen intervention. Group process learning will be utilized. Before beginning the group project, students will receive an overview of group learning principles and interpersonal skills required for effective participation in this project. (Prerequisites: None)

CSS 1560 Social Welfare Services, 3 credits

This course will discuss the history of social welfare as an institution. Various social problems will be examined and discussed in terms of at-risk populations, societal norms and values, and how policy is developed to address these problems. (Prerequisites: None)

CSS 1570 Introduction to Social Work, 3 credits

This course will orient the student to the field of social work. An understanding of people as individuals and members of groups and communities using the Person-In Environment (PIE) approach will be introduced. Generic roles emphasizing change and responsibility are explored and identified. Major topics include: history of social work professional value assumptions, nature of social work relationship, and social work settings: casework, family and group work, advocacy, public and social welfare administration, and community development. The history of the profession, including influential social workers and the social conditions which lead to early social work movements, will be covered. Students will identify and practice the skills necessary for generalist social work practice. (Prerequisites: CSS 1010, CSS 1020, CSS 1030, and CSS 1040)

CSS 2020 Physical/Developmental Supports II, 3 credits

This course covers specific types of developmental, physical and mental disabilities including cerebral palsy, autism, mental retardation, epilepsy, Prader Willi, chromosomal disorders, deafness/hard of hearing, blindness, brain injury and mental health diagnoses. The course will guide the student in obtaining skills on how to support persons with these various disabilities. (Prerequisites: CSS 1020)

CSS 2050 Supportive Interventions, 4 credits

This course provides in-depth analysis of assessment, plan design, implementation and evaluation. The course will cover assessing problem behavior, planning and implement interventions, design proactive

manipulations and integrating a multi-intervention, multi-disciplinary team approach. The course will provide the additional groundwork to integrate a multiple-intervention, multi-disciplinary team approach to client behavior management. The course will also explore the understanding of regulatory restrictions and guidelines on intervention and Rule 40, mental health issues sometimes associated with behavior, psychotropic medications and crisis intervention. (Prerequisites: CSS 1010, CSS 1020, CSS 1030, and CSS 1040)

CSS 2100 CSS Internship, 4 credits

This course includes 180 hours of supervised work-site experience and 12 hours of class time to discuss the integration of knowledge and skills. Discussion topics include recognizing trends in the development disability field, identifying characteristics of special populations and analyzing the impact of the work environment on worker-client relationships. (Prerequisites: Program advisor approval)

Construction Electrician

ELEC 1001 Electrical Theory I, 5 credits

This course covers the basic concepts of electricity and basic circuits. Included are a basic study of resistance, conductors and insulators, current and voltage sources, voltage drops, Ohm's Law, power, series circuit construction and analysis, parallel circuit construction and analysis, series-parallel circuit construction and analysis, magnetism, instrument usage, circuit theorems, and terminology. This course includes lab time to prove and reinforce learned electrical concepts. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1020 Residential Wiring Lab I, 4 credits

This hands-on lab course is designed to give students the practical application and installation experience needed to install electrical materials, apparatus, and circuits necessary and required in residential construction. All installations are based on the current edition of the National Electric Code and local accepted wiring standards or practices. Proper usage of equipment, hand and power tools, and safety practices will be covered. Hand tools will need to be purchased. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1030 National Electrical Code I, 2 credits

The National Electrical Code is the statewide basis for electrical installations, for inspections, and license examinations. Introductions to the code, how the code book is constructed, who determines its contents, and how to use the code book when installing electrical circuits are covered in this course. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1061 Electrical Theory II, 5 credits

This course continues the basic concepts of electricity and alternating current (AC) circuits. Included are studies of magnetic induction; single phase generation; resistance in single phase AC series, parallel, and combination circuits; capacitance in single phase AC series, paral-



lel, and combination circuits; inductance in single phase AC series, parallel, and combination circuits; phase relationships; power quality issues including power factor and harmonics; instrument usage and terminology. This course includes lab time to prove and reinforce learned electrical concepts. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: ELEC 1001, MATH 1400 with a "C" or better grade)

ELEC 1080 Residential Wiring Lab II, 4 credits

This hands-on lab course is designed to give students the practical application and installation experience needed to install electrical materials, apparatus, and circuits necessary and required in residential construction. All installations are based on the current edition of the National Electric Code and local accepted wiring standards or practices. Proper usage of equipment, hand and power tools, and safety practices will be covered. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: ELEC 1020 and ELEC 1030)

ELEC 1090 National Electrical Code II, 3 credits

This course is a continuation of ELEC1030 National Electrical Code I with an emphasis on the study of branch circuits, feeders, branch circuit and feeder calculations, services, overcurrent protection, and grounding. (Prerequisites: ELEC 1030)

ELEC 1101 Power Limited, 2 credits

This course covers the general procedures for installing and terminating voice, data, fire alarm, and signaling cables with a structured cabling approach. Emphasis will be placed on the various types and ratings of common low-voltage cable, as well as fiber optic cable used for non power-limited or power-limited circuits. National Electrical Code (NEC) articles that pertain to these areas will also be studied. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1107 PLC's & Electronics for Electricians, 6 credits

PLC's and Electronics for Electricians is an introductory lab course combining programming and operating Allen- Bradley modular Small Logic Controller (SLC) 500 and Allen Bradley MicroLogix 1000 fixed controllers, with an introductory classroom/lab course presenting solid state devices circuits and applications commonly found in the electrical industry. The PLC controllers will be programmed and operated using RSLogix 500 programming software. PLC topics include timers, counters, sequencers, subroutines, start- stop- jog stations, and other programmable operations used in basic PLC applications. Students will also learn how to troubleshoot, save, document, and print out a hard copy of their programs. Basic fundamentals and applications of solid state devices such as diodes, transistors, silicon controlled rectifiers (SCR's) and triacs are covered in theory as well as analyzed in the lab. The lab emphasizes device terminology and component identification. The students will learn when and how to use various test equipment including multi-meters and oscilloscopes, to take measurements and apply troubleshooting techniques on the circuits they build. This course is a component of the Minnesota Department of Labor and

Industry Two- Year year technical program experience rules. (Prerequisites: ELEC 1061 and ELEC 2020, or equivalent)

ELEC 1110 Lighting, 2 credits

This course covers lighting terminology and the principles of light and sight. It will cover incandescent, fluorescent, and HID lighting luminaires and lamps. Luminaire installations and light distribution are covered as well as code requirements for lighting and luminaires. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two- year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1121 Electrical Heating and Air Conditioning, 2 credits

This course covers the principals and terminology of heating and cooling systems found in residential and commercial buildings. It also will cover control systems and schematic diagrams for heating and cooling. (Prerequisites: None)

ELEC 1130 Plan Reading, 2 credits

This course covers the basic analysis of construction methods and design. Included are the studies of interpreting prints, specifications and construction materials. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two- year Technical Program Experience Credit Rules. (Prerequisites: None)

ELEC 1140 Safety Principles/OSHA I, 1 credit

This course covers occupational safety and health practices that are common to labor industries and presents information on how to develop a personal strategy to help avoid unsafe practices. An overview of OSHA and a review of OSHA safety requirements for general industry and construction sites will be presented. This course is a component of the Minnesota Department of Labor and Industry Two-Year year technical program experience rules. (Prerequisites: None)

ELEC 1141 Safety/OSHA II, 2 credits

This course covers occupational safety and health practices that are common to labor industries and presents information on how to develop a personal strategy to help avoid unsafe practices. An overview of OSHA and a review of OSHA safety requirements for general industry and construction sites will be presented. (Prerequisites: None)

ELEC 2010 Commercial Wiring Lab I, 3 credits

This lab course is planned to give the students some practical application and practice of wiring installations normally found in commercial buildings. This course is taught in conjunction with ELEC2030 National Electrical Code III. (Prerequisites: None)

ELEC 2020 Motors & Controls, 2 credits

This Motors and Controls course is intended to provide an introductory study of the fundamental theory and operation of electric motors, motor controllers, and motor control circuits. The course will include study of mechanical limit switches, relays, magnetic motor starters, motor overloads, symbols, and control ladder diagrams. Motor and motor starter installation, wiring, motor connections, and troubleshooting will also be covered for common motor control circuits. This course fulfills the Minnesota Department of Labor and Industry 2-year technical program experience credit rules 3800.3825, subp. 2 technical



content for motors, motor controls, electronic controls, test equipment and troubleshooting. (Prerequisites: ELEC 1061 and ELEC 1090)

ELEC 2030 National Electrical Code III , 3 credits

This course is a continuation of ELEC1090 National Electrical Code II with an emphasis on grounding electrical services and equipment, bonding services and equipment, overcurrent protective devices, outlet boxes, appliances, and cable and conduit wiring methods. (Prerequisites: ELEC 1090)

ELEC 2040 Three-Phase Electrical Theory, 4 credits

This is a continuation of ELEC1061 providing a review of single-phase circuits and a study of delta and wye polyphase circuits, concepts of transformer operation, connections, calculations, installation, and maintenance procedures. This course is a component of the Minnesota Department of Labor and Industry Two-Year year technical program experience rules. (Prerequisites: ELEC 1061)

ELEC 2060 Commercial Wiring Lab II, 3 credits

This course is a continuation of ELEC 2010 Commercial Wiring Lab I and is designed to give students exposure and practice with methods used in commercial and industrial wiring. This course is taught in conjunction with ELEC 2080 National Electrical Code IV. This course is a component of the Minnesota Department of Labor and Industry Electrical ACT Two-year Technical Program Experience Credit Rules. (Prerequisites: ELEC 2010)

ELEC 2071 Motors and Controls II, 3 credits

This Motors and Controls course is a continuation of ELEC2020 Motors and Controls I, and is intended to develop a fundamental understanding of electric motor control methods and techniques common in the electrical industry. This course will include study of electronic controls, time delay sequence control, interlocking circuits, reduced voltage starting, and troubleshooting process controls. This course will also include the study of Variable Frequency Drive (VFD) fundamental installation and operation. This course is a component of the Minnesota Department of Labor and Industry 2-year technical program experience credit rules. (Prerequisites: ELEC 2020 and ELEC 2040)

ELEC 2080 National Electrical Code IV, 2 credits

This course is a continuation of ELEC2030 National Electrical Code III and is a study of commercial and industrial wiring code applications. (Prerequisites: ELEC 2030)

Emergency Medical Services

EMED 1076 BLS for the Health Care Provider, 1 credit

This course includes First Aid and Cardiopulmonary Resuscitation (CPR) for the Adult, Child, and Infant. This course is taught with National Safety Council and current American Heart Association guidelines. Alternative CPR delivery models will be covered. This course fulfills the requirements for health care programs including Practical Nursing, Medical Assistant, as well as students in various other programs. Upon successful completion, participants will receive an American Heart Association Basic Life Support (BLS) for the HealthCare Provider card. (Prerequisites: None)

EMED 1112 Emergency Medical Technician, 9 credit

Course content includes materials included in the most current Emergency Medical Services (EMS) Educational Standards appropriate for the Emergency Medical Technician (EMT) and utilizes more current principles as needed. The EMT course is an assessment-based education utilizing cognitive knowledge attained applied to real-life situations. The EMT course provides preparation in prehospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. Major topic areas covered include introduction to EMS, roles and responsibilities of an EMS provider, medical and trauma assessment, anatomy and physiology, pathophysiology of disease, and special populations. Upon successful completion of this course, students will be eligible to sit for the National Registry of Emergency Medical Technicians (NREMT) psychomotor and cognitive exams at the EMT level. (Prerequisites: None)

EMED 1120 ECG Recognition and Treatment for EMS, 1 credit

Introductory course focusing on cardiac anatomy and physiology; Electrocardiogram (ECG) lead placement; ECG rhythm interpretation; and overview of potential patient presentation among different ECG rhythms. (Prerequisites: MN EMT or admission into Health Program. Co-requisites: EMED 1125, EMED 1130, and EMED 1135)

EMED 1125 EMS Operations, 2 credit

This course is designed to enhance the Emergency Medical Technician's (EMT) skills in advanced procedures and assessment. Skills learned in this class will allow students to assist paramedics on Advanced Life Support (ALS) calls. Course covers critical thinking, prioritization, use of effective communication skills, and the assistance in performing potentially life-saving interventions in stressful environments. Course covers the gaining of understanding in the development and deployment of Emergency Medical Systems (EMS) systems and basic ALS pharmacology commonly used. (Prerequisites: MN EMT Co-requisites: EMED 1120, EMED 1130, and EMED 1135)

EMED 1130 ALS Clinical, 2 credits

Ride a minimum of 96 hours in an Advanced Life Support (ALS) ambulance. Assist paramedics in performance of ALS skills and assessment while refining Basic Life Support (BLS) assessments and skills. (Prerequisites: MN EMT Co-requisites: EMED 1120, EMED 1125, EMED 1135)

EMED 1135 Basic Pharmacology for EMS, 1 credits

This is an introductory course focusing on pharmacologic principles including introduction to dosage calculations and medications commonly used in Advanced Life Support (ALS) ambulances. Assisting and supporting a paramedic to safely administer medications through a variety of routes will also be covered. (Prerequisites: MN EMT Co-requisites: EMED 1125, EMED 1130, and EMED 1120)

English

ENGL 0101 Basic English, 4 credits

Basic English offers the student the opportunity to study and review English grammar and punctuation; develop fluency; organize ideas; and write paragraphs and short essays, as well as edit for grammar,



punctuation, and spelling. The course will introduce students to the practice of composition as a process of writing and revising, rather than as a one-time act. Revision exercises will allow students the chance to demonstrate improvement after receiving specific instructor and peer feedback. The activities in this class will include grammar instruction; workbook and online editing exercises to practice grammar skills; class discussions of topics; and exercises to assist in determining a thesis for an essay, organizing a first draft, developing support for the main idea, composing an essay, writing in rhetorical modes, proofreading, and using basic citation skills. Students will also learn how to create formatted documents using the appropriate software and to interact with the instructor and peers via the colleges online learning platform. (Prerequisites: None)

ENGL 1105 (MnTC 1, 2) Composition I, 4 credits

English Composition 1105 is an introductory course focused on academic writing assignments that involve critical reading, thinking, listening, and writing for a variety of rhetorical purposes and audiences. Students will learn how to develop their ideas; organize rough drafts; respond to peer and instructor feedback; and revise and edit their essays. Students will receive instruction and practice in composing narrative, descriptive, expository, analytical, and persuasive essays, and will compile a viable job search portfolio. Each student will also develop a research paper, with sources properly cited in MLA format, through a process of discovering, analyzing, and synthesizing information drawn from both print and electronic sources. (Prerequisites: ENGL 0101, Basic English AND READ 0900, Reading Skills or Appropriate Accuplacer score) (4 Credits Lecture/0 Credit Lab)

ENGL 1110 (MnTC 1) Special Topics: Research Project, 1 credit

This course is designed for students who have previously taken a 3-credit freshman-level course at an accredited college. It assumes that the student is already able to compose an essay and understands the basics of writing, including using prewriting strategies; writing a thesis statement; organizing and developing the introduction, body and conclusion of an essay; and using the writing conventions with accuracy. This course will specifically focus on the research paper. In doing so, it will emphasize communication skills, including proper employment of MLA format to document sources, and effective, ethical implementation of technical and information literacy skills. (Prerequisites: ENGL 0101, Basic English or Appropriate Accuplacer score) (1 Credit Lecture/0 Credit Lab)

ENGL 1150 (MnTC 2, 6, 7) Multicultural Literature, 4 credits

This course introduces students to important literary contributions of writers from a variety of ethnic and cultural backgrounds, focusing on critical reading and discussion; the elements of literature; and analysis, interpretation and evaluation, in minority and immigrant literature of the United States. Coursework will include short essays, peer-review work, and a longer researched essay using MLA citation format. Students will first write about their own cultural heritage, and then study several significant and representative multicultural works. This course will explore the global origins of people who make up United States society; the problems and possibilities facing groups based on race, religion, gender, ethnicity, national origin, and social class; and the strategies, struggles, and ingenuity of those who have brought about change. (Prerequisites: None) (4 Credit Lecture/0 Credit Lab)

ENGL 2105 (MnTC 1, 2) Business and Technical Writing, 4 credits

English 2105 is a course designed to help students communicate effectively in the technology-supported writing environment of the 21st-century workplace. The course teaches the rhetorical principles that help students shape their business writing ethically, for multiple and multicultural audiences, in a variety of professional situations. Students will produce effective business letters, emails, memos, researched reports, web sites and collaborative projects in professional contexts. Students will analyze a variety of communication situations and design appropriate responses through tasks that involve problem solving, rhetorical theory, document design, oral presentations, writing teams, and audience awareness. (Prerequisites: English 0101 or appropriate placement score) (4 Credits Lecture/0 Credit Lab)

Electronic Engineering Technology

EETEC 1101 DC Electrical Theory/Lab, 5 credits

This course will cover quantities and units, voltage, current, resistance, OHMs Law, energy, power, series circuits, and series-parallel circuits. The Lab will emphasize electronic component identification, electronic schematic reading, circuit wiring and documentation. Troubleshooting techniques are implemented throughout the course. (Co-requisites: ETEC 1111)

EETEC 1102 DC Mechatronics 1 DC, 3 credits

This course will cover electronic principles and passive components. Students will apply Direct Current (DC) concepts in lab, construct circuits, and gain experience with measuring equipment. Course concepts will be applied to troubleshooting mechatronic systems. The lab will emphasize electronic component identification, electronic schematic reading, circuit wiring, measurement, and documentation. (Prerequisites: None) (Co-requisites: ETEC 1130 and ETEC 1140)

EETEC 1111 AC Electrical Theory and Lab, 5 credits

The course will cover analyzing components in series, parallel, and series-parallel AC (Alternating Current) circuits, using meters, function generators, Oscilloscopes, Ohm's Law, Kirchhoff's Laws, and troubleshooting concepts. The Lab emphasizes electronic component identification, schematic reading, circuit construction and testing, applying AC test and measuring equipment, as well as documentation. Troubleshooting techniques are implemented in every lab. (Co-requisites: ETEC 1101)

EETEC 1113 Mechatronics 2 AC, 3 credits

This course will cover Alternating Current (AC) electronic principles and passive components. Course concepts will be applied in troubleshooting mechatronic systems. Lab will emphasize AC signal measurement, electronic component characteristics, schematic reading, circuit construction, and documentation. (Prerequisites: ETEC 1102)

EETEC 1130 Introduction to Electronic Engineering Technology, 2 credits

This course will introduce the broad range of industry careers involving Electronic Engineering Technology. This course will introduce students to engineering software and hardware tools used throughout the program and industry. It will also provide hands-on experience



with software-based instrumentation. This course builds a foundation of electronic concepts. (Prerequisites: None)

ETEC 1140 Circuit Analysis, 2 credits

This course covers measuring systems, units, methods, and tools for analyzing electronic circuits. Electronic laws and theorems will be applied in calculating circuit estimates. Component documentation, schematics, and analysis methods such as spreadsheets and circuit simulation will be applied throughout this course. (Prerequisites: None) (Co-requisites: ETEC 1102)

ETEC 1151 Computer Troubleshooting A+, 3 credits

This course covers the analysis and troubleshooting skills required to maintain personal, industrial, and embedded computers. The A+ Certification Exam curriculum, a recognized industry standard for computer technicians, will be introduced. Course lab activities cover the application of computer hardware and operating systems. Each student will build a computer, which they will keep upon completion of the program. (Prerequisites: None)

ETEC 1170 Programmable Logic Controllers, 2 credits

A Programmable Logic Controller (PLC) is a device used widely in industrial automation to control anything from a small self-contained water filter system up to an entire factory production line. This course introduces applying PLCs in automated systems. This course covers the fundamental ladder logic programming using Allen Bradley software and controllers. The increasingly popular international standard IEC programming languages will be introduced, as well as PLCs from other manufacturers. The basics of automation safety, steps in designing and documenting PLC programs, as well as trouble shooting will be covered. This class emphasizes hands on lab work. (Prerequisites: ETEC1250)

ETEC 1202 Solid State Electronic Devices, 5 credits

Solid State Electronic Devices cover both discrete devices, as well as integrated circuits. This course introduces fundamentals of solid state electronic device operation and circuit applications, applying them to constructing and troubleshooting circuits in lab. The lab component emphasizes device identification, circuit wiring and testing, test equipment use, and documentation. Both switching and linear modes of solid state electronic device operation will be explored. Troubleshooting techniques are implemented throughout the course. (Prerequisites: None) (Co-requisites: ETEC 1113)

ETEC 1230 Electromechanical Devices, 3 credits

This course covers electromechanical devices and principles. The course will introduce electronic test equipment, devices, direct current (DC) and alternating current (AC) circuits. The learner will control the position, speed or acceleration of an object using a variety of servo and stepper motors. Basic troubleshooting techniques will be integrated throughout the course. (Prerequisites: None)

ETEC 1240 Introduction to Computers for Technical Users, 3 credits

This course is designed for Electronics Technician students, who as part of their training require a technical approach to understanding PC operation and the use of a Windows based Office Suite. Electronics

technicians are increasingly expected to have skills in documenting tests and procedures, performing calculations and analyzing collected data, and presenting information to others in a clear and professional format. Students will study the basic technical aspects of personal computer systems including current hardware architectures, peripherals, operating systems, and software applications. This class will emphasize the application of word processors (MS Word), spreadsheets (Excel), and presentation software (Power Point) for electronics technicians. Students will be taught with assignments applied directly to electronics. (Prerequisites: None)

ETEC 1250 Digital I, 3 credits

This course provides an introduction to digital electronics. The emphasis is on the operation, application, and troubleshooting of logic gates. This course also covers Boolean algebra, number system conversion, combinational and sequential logic. Troubleshooting digital circuits is emphasized throughout the course. (Prerequisites: None)

ETEC 1260 Lasers & Optics, 2 credits

This course introduces laser and optics fundamentals. Optical components and systems are covered, as well as lasers and their industrial applications. This course will emphasize the importance of laser safety, optical alignment, and beam calibration. (Prerequisites: ETEC 1102)

ETEC 1271 Technical Documentation, 3 credits

This course covers technical documentation including writing lab reports, writing operation and service manuals, project cost estimating, project proposals, and media research. Course projects will include writing a small technical manual, documenting circuit operations, and creating project proposals. (Prerequisites: none)

ETEC 1281 Engineering Technology Programming: LabVIEW & C++, 2 credits

This course will introduce the fundamentals of software development and apply this knowledge to LabVIEW and C++ programming. (Prerequisites: ETEC 1102),

ETEC 1300 Operation Amplifiers & Linear Integrated Circuits, 2 credits

This course will introduce operation amplifiers and their applications. The lab will emphasize electronic component identification, electronic schematic reading, circuit wiring and documentation. Troubleshooting techniques are implemented throughout the course. (Prerequisites: None) (Co-requisites: ETEC 1201 and ETEC 1270)

ETEC 2010 Basic Wireless Communications, 2 credits

This course teaches the fundamentals of wireless communications including the transmission and reception of electromagnetic signals. Through hands-on labs constructing, analyzing, and troubleshooting wireless circuits, the learner will gain experience with radio frequency (RF) circuits and test equipment. (Prerequisites: ETEC 1300)

ETEC 2011 Machine-to-Machine Wireless Communications, 2 credits

This course covers principles of wireless communication and technology used in Machine-to-Machine communications (M2M). The electromagnetic spectrum, communication bands, communications



systems and circuits, antennas and transmissions lines, modulation, noise, and technology used for interconnecting automated systems will be explored. (Prerequisites: ETEC 1201)

ETEC 2070 Programmable Logic Controllers (PLC's), 2 credits

A Programmable Logic Controller (PLC) is a device used widely in industrial automation to control anything from a small self-contained water filter system up to an entire factory production line. This course introduces applying PLCs in automated systems. This course covers the basic elements of ladder logic programming using Allen Bradley software and controllers. The increasingly popular international standard IEC programming languages will be introduced, as well as PLCs from other manufacturers. The basics of automation safety, steps in designing and documenting PLC programs, as well as basic PLC instructions and troubleshooting will be covered. This class emphasizes hands on lab work. (Prerequisites: ETEC 1111)

ETEC 2137 Computer Controlled Systems, 4 credits

Integrating LabVIEW LabVIEW is a powerful graphical programming language that has been widely adopted throughout industry. This course will cover fundamental and intermediate topics of LabVIEW programming. The learner will create applications to acquire, process and display real-world data. The learner will write programs to monitor temperature and interface software with Data Acquisition (DAQ) hardware. (Co-requisites: ETEC 1250)

ETEC 2138 LabVIEW and Data Acquisition, 4 credits

This course will cover intermediate topics of LabVIEW programming. The learner will create applications to acquire, process, and display real-world data. Programs to monitor temperature and interface software with Data Acquisition (DAQ) hardware will be addressed. (Prerequisite: ETEC 1281)

ETEC 2142 C++ Programming Integrating Microcontrollers, 4 credits

This course will introduce students to a high-level programming language that is widely used in the engineering field. Students will learn how to flowchart, write, compile, troubleshoot and execute their own C++ programs. Students will learn how to apply their programming knowledge to microcontrollers. Microcontrollers are embedded in everything from microwaves, cell phones, camcorders, to satellites, planes, industrial machines, etc. Students will design programs to interface between the I/O ports of a microcontroller and external devices. (Prerequisites: ETEC 1201)

ETEC 2143 Advanced Programmable Logic Controllers (PLCs), 3 credits

This course covers advanced skills applying Programmable Logic Controllers (PLCs) in automated systems. Advanced ladder logic programming will be covered, and the International Electrotechnical Commission (IEC) 61131 standard programming languages will be introduced. Automation safety and the process of designing PLC programs will be emphasized. (Prerequisites: ETEC 1170)

ETEC 2147 Data Acquisition and Signal Conditioning, 4 credits

Using LabVIEW, data acquisition devices, and signal conditioning hardware, the Data Acquisition and Signal Conditioning course

teaches students the fundamentals of PC-based data acquisition and signal conditioning. During the course, the student will get hands-on experience with installing and configuring data acquisition hardware and learn to use data acquisition software functions to build applications. Students will also use the NI-DAQmx API to learn about analog input, triggering, signal conditioning, signal processing, analog output, digital I/O, and counters. (Prerequisites: ETEC 2137)

ETEC 2162 Robotics and Automation Controls, 5 credits

This course covers fundamentals of robotic concepts and applications. Topics include experimenting with microcontrollers, sensors, teach pendants, and servos and stepper motors. Advanced troubleshooting techniques will be integrated throughout the course. (Prerequisites: ETEC 1102, ETEC 1281, ETEC 1170 and ETEC 1250)

ETEC 2172 Mechatronics Capstone Project, 5 credits

In this course, students will create a mechatronics project which requires interfacing software and hardware. The course emphasizes the concept of teamwork, placing students in groups to complete the project. Projects will be presented to the Electronic Engineering Technology Advisory Committee. (Prerequisite: ETEC 2162 and ETEC 2138) (Co-requisite: ETEC 2177)

ETEC 2177 Mechatronics Capstone Design and Documentation, 2 credits

The goal of this course is for designing and documenting the capstone project. Additional goals include creating a project management spreadsheet incorporating the six steps of problem-solving, and presenting the design and documentation at the end of the course to the Electronics Advisory Committee. (Prerequisites: ETEC 2162 and ETEC 2138) (Co-requisites: ETEC 2172)

ETEC 2235 Instrumentation and Process Control, 3 credits

This course will cover terminology and application of industrial measurement and process control. Demonstrate measurement and control techniques of flow, pressure, level control and temperature within an automated system. (Prerequisites: ETEC 1230)

ETEC 2251 A+ Certification Preparation & Computer Troubleshooting, 6 credits

This course teaches the analysis and troubleshooting skills required to maintain and repair IBM compatible computers. Students also prepare to take the A+ Certification Exam, a recognized industry standard for computer technicians. This class emphasizes hands on work, with lab experiments designed to teach the function and application of the various sections of the PC and operating systems. Each student builds a computer to be used for lab investigations, and to keep upon completion of this course. (Prerequisites: ETEC 1300)

ETEC 2275 A+ Computer Troubleshooting & Networking for Automation, 4 credits

Increasingly within the field of automation and controls, computers are applied in collecting data, equipment programming, and equipment control. This class is designed for automation and controls technicians. Technicians who have a good understanding of computer/network concepts, and can apply them to integrate with controls, have a career advantage. This course teaches the analysis and troubleshoot-



ing skills required to maintain and repair personal computers as well as basic networks. Students will be introduced to the A+ Certification Exam, a recognized industry standard for computer technicians. This class emphasizes hands on work, with lab experiments designed to teach the function and application of the various sections of the PC, operating systems and networks. Each student builds a computer to be used for lab investigations, which they keep upon completion of this course. (Prerequisites: ETEC 2161)

ETEC 2276 Industrial Networking IOT/M2M, 4 credits

This course covers networking technology for the industrial Internet of Things (IOT) and Machine-to-Machine (M2M) communications. Industrial IOT capable devices, such as Programmable Logic Controllers (PLCs) will be networked with systems for programming, monitoring, data collection, and Human Machine Interface (HMI). The course also covers configuring M2M network devices, network documentation, and troubleshooting industrial networks. (Prerequisites: BMET 1301 and ETEC 1170)

Health Information Technology

HITM 1030 Medical Coding for Scribing, 3 credits

This course is an introduction and overview of medical diagnosis and procedure coding. This course will focus on rules and conventions of coding as well as the chapter-specific guidelines for assignment of principal and additional diagnoses in both inpatient and outpatient settings. The purpose of this course is to provide the medical scribe with an understanding of and familiarity with the requirements of medical coding as used within the electronic health record. (Prerequisites: None)

HITM 1100 ICD-10 Coding, 3 credits

This course introduces the student to ICD10 diagnostic and procedural coding. Numerical, diagnostic and procedural coding provides for retrieval of health care data for medical research, statistics and the evaluation of medical care. Coded data is used as a basis for financial reimbursement. (Prerequisites: READ 0900 or appropriate assessment score, HLTH 1000, HLTH 1005 and HLTH 1040)

HITM 1110 Medical Terminology in Health Information, 3 credits

This course is designed to combine the terminology for medications prescribed and for common disease conditions, according to the American Health Information Management Association (AHIMA). Content includes spelling and usage of word roots, suffixes, prefixes, word analysis, and abbreviations common to the health information professional. This course will also include drug terminology, pharmacological names, drug classifications and the medical uses of medications per body system. (Prerequisites: None)

HITM 1111 Pharmacology for Health Information, 1 credits

This course is designed to complement the terminology for medications prescribed for common disease conditions, according to the American Health Information Management Association (AHIMA). Content includes drug terminology, pharmacology names, drug classifications, and the medical uses of medications. (Prerequisites: NONE)

HITM 1120 Health Information Technology Practicum I, 3 credits

This is the first of two Health Information Technology (HIT) professional practice experiences. It is designed to provide exposure to practical general training and experiences in health care delivery systems. Topics include basic organization/management of health information in various types of health care organizations and managed care organizations; uses and structure of clinical vocabulary systems; and the impact of external forces on the healthcare industry. The course will offer application activities which reinforce concepts introduced in the classroom and at site visits. This course also includes a career research report and the completion of several review guide exams. (Prerequisites: COMP 1000, ADSC 1221, HLTH 1000, HLTH 1005, ADSC 1240, ADSC 1244, ADSC 1247, HITM 1100, HITM 1110, HITM 1210 and instructor permission)

HITM 1130 ICD-10-CM Coding, 3 credits

This course is an introduction to the International Classification of Diseases, 10th edition, Clinical Modification (ICD-10-CM). The course will emphasize correct diagnosis coding, utilizing the alphabetic index and tabular listing within the current ICD-10-CM codebook. The course will focus on rules and conventions of ICD-10-CM as well as the chapter-specific guidelines for assignment of principal and additional diagnoses in both inpatient and outpatient settings. (Prerequisites: READ 0900 or appropriate assessment score, HLTH 1000, HLTH 1005 and HLTH 1040)

HITM 1190 ICD-9 After ICD-10, 3 credits

ICD-10-PSC training. Diagnostic and procedural coding provides retrieval of health care data for medical research, statistics, and the evaluation of medical care, regardless of the coding tools used. This course introduces ICD-9-CM training, which is the current industry standard. (Prerequisites: None)

HITM 1200 Billing and Reimbursement, 2 credits

This course provides an introduction to medical claim form preparation and processing. Topics covered in this course will include: Commercial, managed care and federal insurance plans; the reimbursement systems and prospective payment systems (PPS) used in the health-care industry; billing processes and procedures; clean claims and denial; the National Correct Coding Initiatives (NCCI); chargemaster maintenance; regulatory guidelines; and reimbursement monitoring and reporting. (Prerequisites: HITM 1100, ADSC 1240)

HITM 1210 Supervision of Health Information, 3 credits

This course is an introduction to the principles of supervision, communication, and relationships in the management of health information services. Topics covered in this course include leadership, motivation, ergonomics, management concepts, project management concepts, teamwork-building, laws affecting the workforce, and financial management of a department. (Prerequisites: ADSC 1221 and ADSC 1244)

HITM 1221 Introduction to Health Information Management, 3 credits

This course provides an orientation to the health care delivery system, health records, and the health information profession. The American



Health Information Management Association's (AHIMA) educational requirements and code of ethics are also introduced. (Prerequisites: None)

HITM 1230 ICD-10-PCS Coding, 3 credits

This course is an introduction to the International Classification of Diseases, 10th edition, Procedure Classification System (ICD-10-PCS). The course will emphasize correct hospital inpatient procedure coding, utilizing the alphabetic index and tabular listing within the current ICD-10-PCS codebook. The course will focus on rules and conventions of ICD-10-PCS, use of the tables within the index of the codebook, as well as specific guidelines for assignment of principal and additional procedure codes in hospital inpatient settings. (Prerequisites: READ 0900 or appropriate assessment score, HLTH 1000, HLTH 1005, HLTH 1040, and HITM 1130)

HITM 1240 CPT Coding, 3 credits

This course introduces the student to classifying procedures and outpatient procedures using the Center of Medicare and Medicaid Services' (CMS) Coding System, with the main focus on Current Procedural Terminology (CPT). The focus is on applying CPT guidelines and principles. Issues relating to reimbursement will also be addressed. (Prerequisites: HITM1130 and HITM1230)

HITM 1244 Law and Ethics, 2 credits

This course will focus on the application of ethical and legal principles and standards pertaining to health information management. Topics of study will include: the application of ethical principles; legal issues pertaining to the confidentiality aspect of health information management; regulatory agencies and laws; privacy standards and rules; and the Health Insurance Portability and Accountability Act (HIPAA) in relationship to health information use and disclosure, and legal aspects of the health record, including documentation/retention requirements from various organizations. (Prerequisites: HITM 1221)

HITM 1250 Advanced Coding, 2 credits

This course give additional experience using the principles of the International Classification of Diseases, 10th revision, Clinical Modification (ICD-10-CM); International Classification of Diseases, 10th revision, Procedure Coding System (ICD-10-PCS); and Current Procedural Terminology (CPT) coding to ensure proficiency using patient records and advanced concepts of medical coding. The course adheres to current regulations and established guidelines in assigning medical code designations. Electronic applications and work processes to support clinical classification and medical coding will be emphasized in this course. (Prerequisites: HITM 1130, HITM 1230, and HITM 1240)

HITM 1325 Quality and Performance Improvement, 3 credits

This course focuses on the theory, practice and management of performance and quality improvement processes in healthcare organizations. Topics include: performance improvement activities and tools; customer satisfaction; case management; infectious disease control; risk management; quality and safety of patient care; human resources; analysis of performance improvement data; performance improvement tools; change management; and the accreditation, certification and licensure process. (Prerequisites: HITM 1221)

HITM 2240 Computerized Health Information, 3 credits

This course will focus on current and emerging Health Information Technologies (HIT) topics including data collection, maintenance, retrieval and security. Students will be provided with hands-on exposure to technologies such as master patient indices, retrieval and tracking systems, automated chart deficiencies, voice recognition technologies, image-based storage systems, and project management concepts, all of which are parts of the Electronic Health Record (EHR). (Prerequisites: HITM 1221)

HITM 2250 Concepts of Health Data Registries , 3 credits

This course will focus on the health information technician's role in managing and applying secondary records and databases. Topics of study include: relationship of content, use and structure of health care data and data sets to secondary record systems; pertinent laws and regulations affecting registries; and the effective use, application, collection, arrangement, presentation, and verification of health care data. (Prerequisites: HITM1221)

Health/Nursing Assistant

HLTH 1000 Disease Conditions, 2 credits

This course provides basic information about common disease conditions affecting various body systems. Diagnostic and treatment procedures will be presented. (Prerequisites: None)

HLTH 1005 Anatomy & Physiology, 4 credits

This course is a basic study of body structure and function. All body systems will be studied. A prior course in high school is recommended. (Prerequisites: None)

HLTH 1010 Medical Terminology, 1 credit

This course provides an opportunity for students to spell, pronounce, analyze, use, and build medical terminology after learning the meaning of word parts. (Prerequisites: None)

HLTH 1030 Medication Administration for Unlicensed Personnel, 3 credits

This course is the state approved program. The legal requirements concerning medication administration, general information, and administration skills of oral, rectal, and topical routes will be discussed. The ten major body systems and how they are involved in the pharmacology of drug use will be studied. The students will not administer medications on clinical, but will be ready to demonstrate their skills to the employing agency. (Prerequisites: Nursing Assistant and long term care experience or Nursing Assistant and instructor approval)

HLTH 1040 Medical Terminology, 2 credits

This course is designed to cover word analysis, spelling and usage of word, roots, suffixes, and abbreviations common to the medical profession. Emphasis will be placed on spelling and constructing medical terms. (Prerequisites: None)

HLTH 1050 Body Structures, 2 credits

This course examines the fundamentals of human anatomy. Relationships and organization of the major structures of the body will be covered, along with the vocabulary of key anatomic structures necessary



to communicate information in a medical environment. (Prerequisites: None)

HLTH 1103 Nursing Assistant/Home Health Aide, 5 credits

This course introduces concepts of basic human needs, basic nursing and personal care skills, mental health and social needs, restorative services, residents' rights, and home health. The skills are performed in a supervised laboratory and long term care clinical setting. The course is the MnSCU approved curriculum and meets the requirements of the Minnesota Department of Health. Upon completion of the competency evaluation, students can be employed in either a long term care facility, hospital, or assisted living facility. Minnesota Department of Health: Reimbursable Expenses Nursing assistants who pay for the cost of their training and testing prior to employment are eligible for reimbursement. The nursing assistant has 1 year from completion of the test to turn in receipts requesting reimbursement. The facility has 90 days to reimburse the nursing assistant. If the nursing assistant does not remain employed as a nursing assistant for 90 days, the nursing home is under no obligation to reimburse the nursing assistant. The first nursing home the nursing assistant stays at for at least 90 days would then be responsible to reimburse the nursing assistant if it has been 1 year or less since completion of the test. Only certified nursing homes or boarding care homes are required to reimburse a nursing assistant. (Prerequisites: None)

HLTH 1105 Home Health Aide, 1 credit

This course introduces concepts of home care services, goals and responsibilities; how nutrition and homemaking skills contribute to the clients wellbeing, basic emergency procedures, the clients Bill of Rights, ethics and confidentiality related to home care, guidelines for reporting and recording, and special populations. This course meets the requirements of the Federal Government and the Minnesota Department of Health. (Prerequisites: Proof of successful completion of an approved Nursing Assistant Course and is currently in good standing on the Nursing Assistant registry).

Golf/Horticulture

HORT 1015 Soil Science & Fertility, 4 credits

This course is designed to provide information about soil as a plant growth medium, which acts as a reservoir of fertility and physical support of plant roots. Topics covered in this basic study of soils including physical, chemical, and biological properties of soils, soil classification, soil nutrients, soil nutrient action, fertilizer formulation, fertility plans and fertilizer application. (Prerequisites: None)

HORT 1030 Plant Pests I, 3 credits

This course presents topics on weed classification and control measures and the safe and appropriate use of pesticides. Specific content areas include weed classification methods, weed structures, weed control methods, herbicide formulations, and modes of action, chemical application, pesticide laws-regulations and safety. (Prerequisites: None)

HORT 1045 Plant Pests II, 4 credits

This course provides the skills necessary to identify and manage insect and disease problems. Essential environmental protection and control

of pests and diseases is provided using Integrated Pest Management concepts. To ensure successful culture of horticultural crops, an understanding of these principles. Topics include insect structure, classification, injurious insects and their control plus infectious/non infectious diseases, symptoms and their control. (Prerequisites: None)

HORT 1050 Woody Plant Materials I, 3 credits

This course covers the characteristics and identification of deciduous and evergreen trees commercially available in the landscaping industry in the upper Midwest. Particular attention is placed on identification of the plant materials and the classification of these materials according to cultural and landscape use characteristics. A thorough knowledge of native and commercial plant materials is vital background to any horticultural occupation. (Prerequisites: None)

HORT 1060 Woody Plant Materials II, 3 credits

This course covers the characteristics and identification of deciduous shrubs grown in the upper Midwest. Particular attention is placed upon identification of the plant materials and the classification of these materials according to cultural and landscape use characteristics. A thorough knowledge of native and commercial plant materials is vital background to any horticultural occupation. (Prerequisites: None)

HORT 1210 Greenhouse Operations, 4 credits

The course examines the construction and operation of greenhouse structures. Topics include heating and cooling systems for greenhouses, methods of propagation for greenhouse grown plants, irrigation systems, plus the production of bedding plants, identification, and care of tropical green plants. (Prerequisites: None)

HORT 1230 Environmental Gardens, 3 credits

This course covers annuals and perennial flowers, their identification, culture and use in the landscape. Specialized use of plants in sustainable landscapes will also be covered. Examples of plants used for butterflies, hummingbirds, roof top gardens, rain gardens and water gardens will be examined. (Prerequisites: None)

HORT 1310 Specialty Horticulture Crops, 3 credits

This course is designed to introduce students to the techniques and requirements of horticultural crops of special or local interest. Topics include warm and cool season vegetables, small fruits, field grown cut flowers, herbs, woody cut stems, as well as marketing strategies, cultural and harvesting practices, and site selection. Upon completion of the class, students will be able to choose, grow, and market a horticultural crop of special or local interest. (Prerequisites: None)

Interdisciplinary Studies

INTS 1000 Critical Thinking Applications for College, 3 credits

This course applies critical thinking to develop awareness of problem-solving skills while exploring higher-education processes. Students create an individualized education plan based on personal and professional goals they identify. The course presents opportunities to expand awareness of technology alternatives available for communicating ideas, interacting and collaborating with others, exploring information,



and experimenting with new ideas during the college experience and in future careers. (Prerequisites: None)

Information Technology Management

TLIT 1005 Technology Fundamentals, 3 credits

This is a college level course which introduces current business and social technologies and how to use software applications as productivity tools. The fundamentals of file management, the internet/web, hardware, software, operating systems, security, and ethics will be introduced. The course will introduce word processing, spreadsheet software, presentation software and other microcomputer applications using Windows and the Microsoft Office suite.

(Prerequisites: None)

ITEC 1002 Networking Fundamentals, 4 credits

This course introduces the concepts of Networking. Emphasis is placed on designing and maintaining a secure network environment using personal computers. Material to be covered includes local and wide area networks, their use, and the hardware and software used to create networks. Information will be presented on the fundamentals of DOS (Disk Operating System), file management, hardware, software, operating systems, network documentation, security and ethics.

(Prerequisites: None)

ITEC 1016 Web Development Technologies, 4 credits

This course will cover designing and developing dynamic web sites using Hyper Text Markup Language (HTML5) and Cascading Style Sheets (CSS3). Emphasis is placed on the design, development, deployment, and maintenance of interactive web sites. Creating a complete set of documentation and evaluating good web site design is covered. (Prerequisite: None)

ITEC 1025 Project Management, 4 credits

This course provides a comprehensive overview of project management. The course focuses on an understanding of concepts and fundamental practices/techniques used in effective project management. Course instruction is enhanced through hands-on labs, a final team project and exercises. (Prerequisites: None)

ITEC 1030 IT Internship, 2 credits

This course is an educational experience that gives students the opportunity to apply classroom learning to the workplace, expand professional skills and earn academic credit. The IT Internship provides students with an opportunity to apply research, concepts, and skills, from their IT classes and students might partner with a local business or utilize knowledge gained throughout their Information Technology coursework or Help Desk situations. (Prerequisites: ITEC 2115 or ITEC 2200)

ITEC 1035 IT Documentation Standards, 2 credits

This course covers creating usable technical documentation with an emphasis of effective communication, content, standards and styles, identifying target audiences, and research. (Prerequisites: None)

ITEC 1070 IT Support, 1 credits

The course involves the study of Information Technology (IT) support

and customer-interaction job skills. IT support strives to deliver high-quality technical customer support and customer-interaction skills including listening, responding, telephone skills, teamwork, solving and preventing incidents, and conflict resolution. The course will also cover how to apply these skills when dealing with co-workers, customers, and vendors. (Prerequisites: None)

ITEC 2100 Programming Logic & Design, 4 credits

This course provides the beginning programmer with a guide to developing structured programming logic. Students are introduced to programming concepts, enforcing good style and logical thinking. Key points covered include: what structured programming is; the advantages of writing structured programs; modular programming; procedural code; decision making; looping; array manipulations; writing interactive programs; and object oriented programming. Hands-on exercises using JAVA will be used to enhance the concepts introduced. No special knowledge of mathematics, accounting, or other business disciplines is required. (Prerequisites: None)

ITEC 2105 JAVA Programming, 4 credits

This course introduces students to object-oriented programming (OOP) concepts along with the Java programming language syntax to implement these concepts. The course emphasizes a hands-on approach with the students building Java programs that incorporate OOP concepts such as: Objects, Classes, Methods, Decision Making, Inheritance, and GUI design. (Prerequisites: ITEC 1010 or instructor approval)

ITEC 2113 NET Technologies, 4 credit

This course will involve programming with the .NET framework to include working with data from external sources. By using text files and databases, dynamic web applications will be created that draw from real world examples. Additional work on classes and deploying applications will be completed. (Prerequisites: ITEC 2100)

ITEC 2115 IT Support & Security, 4 credits

This course discusses the best practices in IT support & security with an emphasis on how it is implemented in different organizations. Topics include developing customer service skills, identifying common support issues and solutions, end-user training strategies, security threats and security solutions. (Prerequisites: ITEC 1000, ITEC 1015 ITEC 2100 and TLIT 1000 or TLIT 1005 or Instructor approval)

ITEC 2120 DB Design & SQL, 4 credits

This course is designed to provide individuals to build a database application. Students will create the logical and physical database design. They will create tables, queries, forms and reports while implementing proper design methodologies. Students will use SQL to create a simple query, join multiple tables, perform unions, simple totals, grouping data, inserting data, updating data and deleting data. Course instruction is enhanced through hands-on labs, projects, and exercises. (Prerequisites: TLIT 1000 or TLIT 1005 or instructor approval)

ITEC 2121 SQL and Database Design, 4 credits

This course is designed to provide instruction in designing and querying a database using Structured Query Language (SQL). Students



will create logical and physical database designs. They will create tables and queries, while implementing proper design methodologies. Students will use SQL to create a simple query, join multiple tables, perform unions, simple totals, grouping data, inserting data, updating data, and deleting data. Course instruction is enhanced through hands-on labs and exercises. (Prerequisites: None)

ITEC 2127 Information Systems Analysis, 4 credits

This course provides an overview of the various business systems and security strategies including E-Commerce (electronic commerce), M-Commerce (mobile commerce), Enterprise Systems, and Decision Support Systems. The personal, ethical, and social impact of information systems will also be explored. (Prerequisites: None)

ITEC 2136 Web Data Technologies, 4 credits

This course will provide learners with hands-on experience writing server-side scripts to access XML files and databases while focusing on language syntax and the use of functions, arrays, strings, and regular expressions. Its topics will include server- and client- side coding, dynamic web application development, and integration of web systems with databases and XML objects. (Prerequisites: ITEC 1015, ITEC 2100, and either TLIT 1000 or TLIT 1005, or instructor approval)

ITEC 2140 Business Intelligence, 4 credits

This course will provide an introduction to performance measurement tools designed to capture relevant data from all segments of an organization. It will include topics of planning and organizing data into a coherent structure and output that can be used for strategic decision processes. Hands on labs will be used to enhance student learning. (Prerequisites: ITEC 2120 or instructor approval)

ITEC 2145 Database Programming, 4 credits

This course teaches students how to create and execute server-side database programming. It builds upon concepts introduced in the Database Design and SQL course. Advanced topics include creating and writing stored procedure, functions, and triggers. (Prerequisites: ITEC2120 or Instructor approval)

ITEC 2150 Advanced Business Intelligence, 2 credits

In-depth learning of advanced Business Intelligence knowledge and techniques are addressed in this course. (Prerequisite: ITEC 2140)

ITEC 2200 A+ Core Technologies, 6 credits

This course prepares students for the CompTIA A+ certification program. Students will develop end-user background knowledge as they acquire the specific skills required to install, configure, upgrade, troubleshoot, and repair PC hardware components and systems. This course will also provide essential operating system competencies needed to install, maintain, and troubleshoot the Windows 9x, Windows 2000, Windows 2003 and Windows XP operating systems. (Prerequisites: None)

ITEC 2206 Windows Server Administration, 6 credits

This course will cover the installation and configuration of a Windows Server network operating system in a network environment. Students will construct PowerShell scripts and become familiar with command

structure. (Prerequisites: ITEC 1001)

ITEC 2210 Wireless Communications & Security, 2 credits

This course provides students with a fundamental knowledge of the wireless communication and how it works. This course examines wireless protocols, transmission methods, IEEE 802.1 standards, PAN's, LAN's, fixed broadband wireless and digital cellular telephony. Students will learn to comprehend the advantages and challenges of using wireless communications in business and identify how to build an efficient and secure wireless infrastructure. (Prerequisites: ITEC 1000 or instructor approval)

ITEC 2215 Linux/Web Server Administration, 4 credits

This course introduces the fundamentals of the Linux operating system using. Students will learn the basics of the Linux file systems and editors. Linux file processing, administrative commands and utilities, and creating scripts are also covered. In addition, this course provides a foundation for administering, securing and maintaining a Web Server. Skills that will be taught in this course include: building a Web site; basics of networks, Web servers, and Web clients; configuration and maintenance of your Web site; CGI security; server side includes; and secure online transactions. Students will be provided hands-on practice of many of the principals using the latest Web server software. (Prerequisites: ITEC 1000 and TLIT 1000 or TLIT 1005 or ITEC 1005, or Instructor approval)

ITEC 2230 Network Security Fundamentals, 4 credits

In this course, we will take an in-depth look at network security concepts and techniques. Students will examine theoretical concepts that make the world of security unique. This course provides a fundamental understanding of network security principles and implementation, authentication, types of attacks, malicious code, email threats and countermeasures, Web applications, remote access, and file and print services, intrusion detection systems, firewalls, and physical security concepts, security policies, disaster recovery, and computer forensics. This course will adopt a practical, hands-on approach when examining networking security techniques along with examining different network strategies. (Prerequisites: ITEC 1000, ITEC 1015 and ITEC 2100 and either TLIT 1000 or TLIT 1005 or Instructor approval)

ITEC 2310 Graphic Design Technologies, 4 credits

This course introduces the student to the fundamentals of graphic design with a focus on design and Web integration. The latest tools and technologies will be used with an emphasis on hands-on lab experience. (Prerequisites: ITEC 1015 or Instructor approval)

ITEC 2317 Web Interactivity Technologies, 4 credits

Web interactivity tools will be used to develop a web application. The course will cover the principles of web services, web security, search engine optimization, and content management systems. Writing documentation, critiquing web application code, and giving feedback on web application code will be practice. (Prerequisites: TLIT 1005, ITEC 2100 and ITEC 1015)

ITEC 2326 Gaming Technologies, 4 credits

This course introduces the student to game programming. Using a game engine, the student will develop games that employ sprites,



use vector coordinates to position sprites, produce sound effects, and respond to user input from the keyboard and the mouse. The student will implement games using object-oriented programming (OOP) concepts. The course emphasizes OOP concepts such as: sequence structures, selection structures, classes, objects, and methods or functions. Writing documentation, critiquing game code, and giving feedback on game code will be practiced. (Prerequisites: ITEC 2100)

ITEC 2331 Advanced Gaming Technologies, 5 credits

This course builds on concepts gained in Gaming Technologies. A game engine will be used to create more advanced games employing collision detection and animation using sprites. Concepts from physics, such as gravity and acceleration, will be used to create collisions. The student will implement games that read data from files, use collections to store data, and use Object-Oriented Programming (OOP) concepts. This course emphasizes OOP concepts such as inheritance and polymorphism. Writing documentation, critiquing game code, and giving feedback on game code will be practiced. (Prerequisites: ITEC 2326)

ITEC 2340 Scripting Languages, 4 credits

This course introduces students to the latest scripting technologies with an emphasis on designing and developing dynamic web pages for both client-side and server-side execution. (Prerequisites: ITEC 1015 and ITEC 2100 or instructor approval)

ITEC 2342 Game Scripting, 2 credits

The course focuses on using scripting languages to create or enhance games. Topics include programming logic, event handling, functions, variables, and objects as related to game development. (Prerequisites: ITEC 1010)

ITEC 2345 Game Testing, 4 credits

This course provides an overview of game QA and testing. Topics covered include: history of game testing; working conditions and demographics associated with QA and testing teams; how game QA and testing fit into a game's life cycle; bug categories, tools, and documentation; testing disciplines and techniques; getting a job as a tester and working up the testing ladder; and the future of game testing. (Prerequisites: None)

ITEC 2346 Advanced Scripting Techniques, 4 credits

Advanced Scripting techniques will teach student how to create richer, more responsive applications by going beyond the classic client-side scripting model and utilizing open source frameworks and dynamic libraries. This course will emphasize the use of leading industry standards and best practices of developing interactive web applications that utilize both server and browser processing resources, as well as object-oriented concepts of Document Object Model manipulation and event-handling. Course projects will rely on asynchronous request processing and layered architectures. (Prerequisites: ITEC 2340 or Instructor approval)

ITEC 2400 Convergence Fundamentals, 4 credits

This course defines the fundamentals of data networking, telephony networking, and convergence technologies. Students will learn about basic telephony concepts, common telephony standards, how voice

and data are routed across the global public switched telephone network, and key infrastructure issues, including how equipment must be properly tested and secured. Students will identify the transport protocols used for real-time communications, and learn about the functions of gatekeepers and gateways. Students will also compare and contrast the three major signaling protocols for VoIP, learn how to determine whether an existing network is capable of supporting convergent services, and they will identify the specific elements required for a successful VoIP implementation. (Prerequisites: ITEC 1000 or subject to Instructor approval)

ITEC 2405 Switching & Routing, 5 credits

This course provides instruction in the design and implementation of LAN and WAN networks using routers and switches. Topics include Bridging and LAN switching, Internetworking Operating System (IOS) and Security Device Manager (SDM); network management; IP routing; switching and Spanning Tree Protocol (STP); Virtual LANs (VLAN); Routing protocols and router & switch security. Students will also learn IP addressing, subnetting, IPv6, and Variable Length Subnet Masks (VLSM). (Prerequisites: ITEC 1000 or subject to Instructor Approval)

ITEC 2407 Internetworking Devices I, 4 credits

This course provides instruction in the design and implementation of Local Area Network (LAN) and Wide Area Network (WAN) networks using internetworking devices. (Prerequisites: ITEC 1001)

ITEC 2408 Internetworking Device II, 4 credits

This course provides advanced instruction in the design and implementation of Local Area Network (LAN) and Wide Area Network (WAN) using internetworking devices. Topics include network terminology and protocols, network standards, LANs, WANs, Open System Interconnection (OSI) models, Ethernet, fiber distributed interface, Transmission Control Protocol/internet Protocol (TCP/IP) addressing protocol, dynamic routing, and the network administrator's role and function. (Prerequisites: ITEC2407 or subject to Instructor approval)

ITEC 2409 Networking Scripting, 4 credits

This course addresses the design of scripting languages and their applications. Demonstrate writing simple scripts to automate system administration tasks using appropriate languages. (Prerequisites: ITEC 1001 or subject to Instructor Approval)

ITEC 2410 Wide Area Technologies, 2 credits

This course provides an in-depth understanding of the wide area network technologies, the software implementation of the protocols, as well as emerging technologies. Student will learn the basic principles of broadband networks, protocols suitable for broadband networks such as ATM, frame relay and MPLS, switching networks, multiplexing and optical communications. (Prerequisites: ITEC 1000 or subject to Instructor approval)

ITEC 2415 Virtualization Technologies, 4 credits

In this course, you gain the skills needed to install, configure and manage virtual servers and workstations. Students will learn to employ VMware, Microsoft virtual machine (VM) and Citrix XenServer technologies, leverage VMs to build testing, support and training en-



vironments, partition physical servers to decrease operating costs and migrate from physical to virtual machines. Additional topics include using hypervisors, or a virtual machine monitor (VMM), to facilitate workload delivery, how to manage a centralized, on-demand application delivery framework and implement failsafe system backup and recovery strategies. (Prerequisites: ITEC 1000 or subject to Instructor approval)

ITEC 2420 Cloud Computing, 2 credits

This course is designed to introduce the concepts of Cloud Computing as a new computing paradigm. (Prerequisites: None)

ITEC 2430 Firewall Security, 4 credits

This course provides foundational information concerning firewall technology, remediation and security risks, network security design, implementation, and monitoring of a firewall network security plan. This plan will identify elements of firewall design, types of security threats, and responses to security attacks. (Prerequisites: ITEC 1001 or Instructor approval)

ITEC 2501 Android Application Development, 4 credits

Applications will be created for an deployed to the Android Operating Systems (OS). The course will cover designing a user interface, storing and retrieving data, using a content provider, integrating with a web service, using location services, displaying images, and playing audio files. Project management techniques will be implemented. Critiquing an Android OS application and providing feedback on the application will be practiced. (Prerequisite: ITEC 2105)

ITEC 2506 Apple Programming, 4 credits

The course focuses on programming for the Apple mobile Operating System (OS). The course will cover variables, constants, type inference, variable scope, loops, decision structures, arrays, and functions. Object-oriented programming concepts including encapsulation, inheritance, and polymorphism will be examined. Critiquing programming code and providing feedback on code will be practiced. (Prerequisite: ITEC 2100)

ITEC 2511 Apple Mobile Application Development, 4 credits

This course focuses on developing Apple mobile applications and deploying applications to an Apple mobile device emulator. The course covers designing user interfaces, working with views and view controllers, and working with navigation controllers. Developing an Apple mobile application that displays images and plays sounds is covered. (Prerequisites: ITEC 2506)

ITEC 2900 Integrated Capstone Project, 4 credits

This course is designed as the culmination of the student's educational experience. Students will be given the opportunity to work as a member of an integrated development team to analyze, design, develop, test and/or document an IT system to a real-world scenario. Each student will be assigned to a development team and given a user requirement statement for an IT project. Each team will be fully responsible for all aspects of the project from project planning to demonstration of the completed project to a review board. (Prerequisites: Instructor approval)

Judicial Reporting/Broadcast Captioning

JRBC 1000 Realtime Reporting Orientation, 1 credit

Students will receive a brief overview of what machine shorthand is and will be introduced to possible careers in real-time machine shorthand. Both the Judicial Reporting and Captioning/CART programs will be reviewed. Students will also learn the basics needed to begin to use computer-assisted, real-time transcription software, Windows, a stenotype machine, and a laptop in writing machine shorthand in court reporting. (Prerequisites: None)

JRBC 1005 Realtime Reporting I, 4 credits

This course provides the student with skills to write conflict-free machine shorthand theory for computer-assisted realtime translation in court reporting and captioning and assistive realtime reporting for the hearing impaired. Students will also learn to read their steno notes. Students are expected to practice a minimum of 15 hours per week on their own. (Prerequisites: COMP 0100 or successful typing test out at 25 wpm or more)

JRBC 1031 Foundations of Law, 3 credits

This course is an overview of law covering all major areas of American law and the American legal system. Topics include civil law, criminal law, the judicial system (discovery, trial, and appellate processes), legal terminologies, and methods of researching legal citations. (Prerequisites: None)

JRBC 1105 Realtime Reporting II, 4 credits

This course will refine the student's conflict-free machine shorthand theory for computer-assisted realtime translation in court reporting and captioning and assistive realtime reporting for the hearing impaired. Students will begin working specifically on speed and accuracy goals. Students will continue reading and transcribing their steno notes. Students will also utilize CD recordings for additional practice. Students are expected to practice a minimum of 15 hours per week outside of class. (Prerequisites: JRBC 1005)

JRBC 1120 Realtime Reporting Technology, 3 credits

This course introduces a number of introductory technology concepts and terminology used with both operating systems and application software. Students will learn basic computer-aided transcription (CAT) and realtime translation software features. Students will learn about different types of technology applications that are currently used in different settings, including the computer-integrated courtroom (CIC), depositions, captioning and CART. (Prerequisites: JRBC 1000 and JRBC 1005)

JRBC 1200 Realtime Reporting III, 4 credits

This course will refine the student's conflict-free machine shorthand theory for computer-assisted, realtime translation in court reporting, captioning and CART. Students will continue working on speed and accuracy goals for literacy, jury charge, and 2-voice testimony. This course focuses on 80-100 wpm. Students will continue reading and transcribing their steno notes. Students will also utilize CD discs and cassette tapes from the lab for additional practice. Students are expected to practice a minimum of 15 hours per week outside of class. Students are expected to utilize the lab as assigned. This is an open-



exit course; once requirements are completed, students may move on to Realtime Reporting IV (JRBC 2000). (Prerequisites: JRBC 1105)

JRBC 1400 Realtime Principles, 2 credits

This course teaches the basic to intermediate skills necessary to be a realtime reporter, including resolving conflicts, writing with prefixes and suffixes, resolving word boundary issues, learning three realtime alphabets, writing clean numbers, working with job dictionaries, and dictionary maintenance. Students will prepare to take the CPR exam. Students must pass three tests at 180 wpm with 97 percent realtime accuracy. (Prerequisites: JRBC 2100 or instructor approval)

JRBC 1405 Broadcast Captioning & CART Practicum, 2 credits

This course will provide students with an opportunity to perform actual captioning. Students will work to refine their writing skills for accurate captioning. Students will work with industry standard equipment and will caption many types of programming. Students will also practice in-classroom CART. This course will teach students how to perform CART or on-air captioning. Students will learn Captioning Technology. Students will work to create, build and enhance different job dictionaries, including sports, weather, geography, geo-political terms and names, national and international news, etc. (Prerequisites: Successful completion of Judicial Reporting Program or instructor approval)

JRBC 2000 Realtime Reporting IV, 4 credits

This course will refine the student's conflict-free machine shorthand theory for computer-assisted, realtime translation in court reporting, captioning and CART. Students will continue to work on speed and accuracy goals for literacy, jury charge, and 2-voice testimony. The course focuses on 120-140 wpm. Students will continue reading and transcribing their steno notes. Students will also utilize CD discs and cassette tapes from the lab for additional practice. Students are expected to practice a minimum of 15 hours per week outside of class. Students are expected to utilize the lab as assigned. This is an open-exit course; once requirements are completed, students may move on to Realtime Reporting V (JRBC 2100). (Prerequisites: JRBC 1200)

JRBC 2011 Transcription & English I, 3 credits

Students will learn Basic English rules that are specific to the reporting and captioning profession and how to apply them when writing and transcribing. Students will learn the basic rules of grammar, spelling, punctuation, and capitalization. Students will expand their word knowledge through vocabulary development. (Prerequisites: READ 0900 (Reading Skills) and ENGL 0101 (Basic English) or equivalent passing Accuplacer scores)

JRBC 2016 Transcription & English II, 3 credits

This course will cover transcript production and considerations that need to be made when creating transcripts for sale. Students will learn transcript production of Judicial Reporting proceedings as well as for broadcast captioning/CART. Students will learn to use reference materials when producing transcripts and how to locate additional references when needed. Students will also learn Advanced English rules that are specific to the reporting profession and how to apply them when writing and transcribing. Students will continue to develop advanced vocabulary usage. (Prerequisites: Successful completion of

JRBC 2011 Transcription & English I)

JRBC 2030 Judicial Reporting Procedures, 3 credits

This course covers reporting procedures that will be used in trials, depositions, and hearings. It covers marking and handling exhibits, handling of notes, and interrupting speakers. It will also cover what the standards are regarding off the record discussions, sidebars, interpreters, swearing/affirming witnesses, jury polling, certifying questions, voir dire of a jury, and reading and signing of depositions. Students will learn the contents of the NCRA code of Professional Ethics and how that relates to their future work. Students will become familiar with supplies commonly used in the field. (Prerequisites: JRBC 1105)

JRBC 2036 Word Enrichment, 3 credits

This is a vocabulary and usage course for realtime court reporting students. This course will focus on vocabulary, with an emphasis on comprehension and words that are frequently confused and misused. Students will prepare for the Registered Professional Reporter (RPR) certification written exam, including the study and review of legal and medical terminologies, course reporting procedures, technology, and court reporting skills. (Prerequisites: None)

JRBC 2040 Business Success for Realtime Careers, 2 credits

This course is an overview of the office environments of small businesses and independent contractors in the realtime reporting and captioning careers. This course will focus on setting up an office, tax preparedness, written business communications, promotional presentations, effective resume writing, and job-searching skills. (Prerequisites: None)

JRBC 2100 Realtime Reporting V, 4 credits

This course will refine the student's conflict-free machine shorthand theory for computer-assisted, realtime translation in court reporting and captioning and assistive realtime reporting for the hearing impaired. Students will continue working on speed and accuracy goals. Students will continue reading and transcribing their steno notes. Students will also utilize CD recordings for additional practice. Students are expected to practice a minimum of 15 hours per week outside of class. This is an open-exit course; once requirements are completed, Judicial Reporting students may move on to JRBC 2120, Realtime Reporting VI. (Prerequisites: JRBC 2000)

JRBC 2120 Realtime Reporting VI, 4 credits

This course will refine the student's conflict-free machine shorthand theory for computer-assisted, realtime translation in court. Students will continue working on speed and accuracy for literary, jury charge and 2-voice testimony. This course focuses on 200-225 wpm. Students will continue reading and transcribing their steno notes. Students will also utilize CD discs and cassette tapes from the lab for additional practice. Students are expected to practice a minimum of 15 hours per week outside of class. Students are expected to utilize the lab as assigned. (Prerequisites: JRBC 2100)

JRBC 2126 Captioning & CART Procedures & Research, 3 credits

This course will provide student with an opportunity to refine their technology skills in setting up and troubleshooting captioning and



CART equipment. Students will learn how to read and follow a broadcast script. Students will learn the psychology of captioning, and the use of prescripting and broadcast news preparation. Students will also work to uncover research methods and sources for topical information. This course will teach students how to prepare for their CART or on-air captioning job. Students will work to create and enhance different job dictionaries, including sports, weather, geography, geo-political terms and names, national and international news, etc. (Prerequisites: Successful completion of JRBC 2100 or instructor permission)

JRBC 2135 Broadcast Captioning/CART Internship, 2 credits

This course will give the student actual writing time in a captioning/CART setting. Wherever possible, students will be given opportunities to create a (not-for-sale) transcript. Internship opportunities will only be arranged through the school. (Prerequisites: None)

JRBC 2140 Judicial Reporting Internship, 2 credits

This course will give the student actual writing time in a reporting setting. Wherever possible, students will be given opportunities to do realtime reporting in court and deposition settings with official and freelance reporters. Students will use these reporting opportunities to create a (not-for-sale) transcript. Internship opportunities will only be arranged through the school. (Prerequisites: None)

JRBC 3101 Scoping Procedures, 3 credits

This course will emphasize concepts related to the scoping experience, including reading raw steno of multiple reporters, Computer-Aided Transcription (CAT) software editing, proofreading, transferring files, research, reporter/scopist working relationship, and setting up a home office. (Prerequisite: JRBC 1105)

JRBC 3105 Advanced Proofreading and English Skills, 2 credits

This course is an advanced English and punctuation course that will train scopists to properly punctuate and proofread transcripts. This will train the scopist to proofread accurately while working for several different reporters. This course will review punctuation usage and grammar, including those rules specific to court reporters. Students will complete many worksheets in class and outside of class. Students will proofread actual transcripts from court reporters on a regular basis. (Prerequisites: JRBC 2020)

JRBC 3110 Advanced Transcript Production, 2 credits

This course is an advanced software class. Students will learn the features on their scoping software to edit efficiently. Students will learn how to transfer files within their software to reporters and how to receive files within their software. Students will learn how to edit the rough copy of other writers. (Prerequisites: JRBC 1120)

Landscaping

LNSC 1213 Specialty Landscapes Specialty Landscapes, 3 credits

This course is designed to cover topics in; landscape site plan interpretation, site preparation, plant material installation and maintenance; landscape component cost analysis, and bid preparation. Emphasis will be placed upon environmental best practices for installation. Special projects covered include theme gardens, patios, ponds, waterfalls and fountains. (Prerequisites: None)

LNSC 1223 Sustainable Designs, 3 credits

This course covers the understanding and utilizing of landscape maintenance and management skills which allows grounds management professionals to maintain high-quality landscape settings. This course will present current turf management practices, maintenance of plant materials, planting beds, and other landscape features. Small business management will also be covered. (Prerequisites: None)

LNSC 1233 Introduction to Landscape Horticulture, 3 credits

This course covers construction materials for landscape construction that include brick, natural stone, concrete, wood, and synthetic products. Landscape construction features are present in the landscape for functional and aesthetic value. The turf industry uses many different hardscape materials in their development. When properly designed and constructed, retaining walls, patios, and walkways add character and value to any environmental landscape. Topics presented in this course include the study of construction materials, construction theory and installation techniques. Actual projects will be constructed during the presentation of the course. (Prerequisites: None)

LNSC 1240 Plant Production, 4 credits

This course introduces students to concepts involved in sustainable production of landscape plants. Topics covered provide the practical skills in the areas of propagation, growing, harvesting, and utilizing of field and container grown woody plants and perennials. A special emphasis is placed on sustainable practices with an introduction to certifications within the industry. (Prerequisites: None)

LNSC 1250 Retaining Wall & Surface Design & Construction, 3 credits

This course is structured to present design concepts and detailed construction methods with hands on experience. Patios, decks, walkways, and retaining walls constructed of brick, stone, concrete or wood add beauty and longevity to the outdoor landscape environment. When properly designed and constructed these construction features will provide years of usefulness. Topics presented in this course include the study of construction materials, construction theory and construction techniques. Actual projects will be constructed during the presentation of the topics covered in this course. (Prerequisites: None)

LNSC 1260 Landscape Design CAD, 3 credits

The use of computer-aided design is increasing in the landscape industry due to the quality and ease of which designs are created and modified using this tool. It is critical for the Landscape Design Professional to be able to apply computer-aided design skills to landscape drawing. This course will present information on the use of CAD software programs in creating drawings. Topics covered include CAD configurations, CAD menus, command entry, data entry, utility commands, entity draw commands, edit and inquiry commands, and display controls. (Prerequisites: None)

LNSC 1270 Supervised Occupational Experience, 6 credits

The Landscape Technology Supervised occupational experience provides an opportunity for students to apply and integrate classroom and laboratory knowledge to actual work situations. The intent of this SOE is to provide a supervised work experience in order for students to build their expertise and proficiency with landscape skills as well



as enhance their own problem solving abilities. The SOE structure allows students to utilize program content goals in skill building, apply to special problem learning situations, and interact in at least one student-employer seminar. (Prerequisites: Successful completion of a minimum of 20 technical credits and has a minimum 2.0 GPA)

LNSC 1273 Supervised Occupational Experience, 2 credits

The Landscape Technology supervised occupational experience provides an opportunity for students to apply and integrate classroom and laboratory knowledge to actual work situations. The intent of the SOE is to provide a supervised work experience in order for students to build their expertise and proficiency with landscape skills as well as enhance their own problem solving abilities. The SOE structure allows students to utilize program content goals in skill building, apply to special problem learning situations, and interact in at least one student-employer seminar. (Prerequisites: LNSC 1270 may not be taken concurrently. Successful completion of a minimum of 20 technical credits and has a minimum 2.0 GPA)

Logistics

LGA 1000 Transportation & Logistics Strategies, 3 credits

This course provides an introduction to transportation and logistics processes. The curriculum includes the development of the modes of transportation; economic, social and political systems within which the various modes of transportation operate, analysis of present challenges and opportunities facing freight forwarders, the advantages and disadvantages of various modes of transportation, the various highway services available, and important industry terms and acronyms. Course will review regulation and deregulation affecting national and international transportation. It will also address the study of business ownership and functions of management. (Prerequisites: None)

LGA 1005 Logistics Network Management, 3 credits

This course is an introduction to supply network concepts. Supply networks are composed of physical, financial, informational and relational system flows. This course is designed to help solve actual challenges that will be encountered in today's marketplace. Course content covers the planning, organizing, and controlling of such activities as transportation, inventory maintenance, facility location, order processing, purchasing, warehousing, materials handling, packaging, customer service standards, and product scheduling. It will also address the study of business leadership skills, marketing and customer service. (Prerequisites: None)

LGA 1010 Warehouse Administration, 3 credits

Warehouse management is an important element in supply chain management. This course covers the receipt, storage, handling and shipping of materials of all warehouse functions that play a critical role in the supply chain. This course addresses the complex role of warehousing, warehouse functions, processes, organization and operations. Course content includes analysis of warehouse location, operation, management, controls, procedures, finance, security, cargo/materials handling, and productivity. It also addresses the study of economics, budget and finance. (Prerequisites: None)

LGA 1015 Safety Regulations, 2 credits

Safety is the number-one priority of today's supply chain leaders.

Manufacturing, warehousing, transportation and distribution can all be dangerous work environments if not managed appropriately. The course covers Occupational Safety and Health Administration (OSHA) safety standards; emergency action plans; protective equipment; hazard awareness; electrical and tool safety; walking and working surfaces; exit routes; and fire protection and legislation. (Prerequisites: None)

LGA 1020 Logistics Internship, 2 credits

This course is an educational experience that gives students the opportunity to apply classroom learning to the workplace, expand professional skills and earn academic credit. The internship provides the students with an opportunity to apply their educational background to logistics issues confronting logistics companies. (Prerequisites: None)

Machine Trades

MACH 1090 Machining Fundamentals, 2 credits

This course provides students an opportunity to have hands-on experience of reading a blueprint of a part and going through the process of manufacturing a product. (Prerequisites: None)

MACH 1100 Machine Technology I, 7 credits

This course covers basic milling machine, lathe, surface grinding and band saw operation including safety, machine controls, machine setup, common milling and lathe operation such as cutting tools geometry, grinding tool, facing, turning, knurling, boring, external threading, internal threading, grooving, recessing, conventional milling machine principals, etc. Machining feeds and speeds calculation. The operation of drill presses and drilling tools such as countersinking, counter boring, tapping, reaming, etc. (Prerequisites: None)

MACH 1121 Machine Technology II, 2 credits

This course covers the introduction to the calibrations and use of inspection instruments, steel rules, vernier, dial and digital calipers, micrometer, telescoping gauge, small-hole gauge, dial indicators, precision height gauge, optical comparator, and gauge blocks. This course will build reference skills on mathematics, mechanics, and strength of materials, dimensioning, gauging, fits, tooling and manufacturing processes, along with mechanisms such as threads and gears, with the use of standard manufacturing reference material. We will discuss the principles of Statistical Process Control (SPC) and International Organization for Standardization (ISO) standards. (Prerequisites: None)

MACH 1132 Blueprint Reading I/CAD, 3 credits

This course includes the basic interpreting and drawing of 2D Engineering drawing principles. Topics include one-, two- and three-view drawings, dimensioning, tolerance, symbols, sketching, incline surfaces, circular features, sectional views, surface texture, and auxiliary views. (Prerequisites: None)

MACH 1140 CAD I, 1 credits

This course includes the basic use and operation of 2D CAD (Computer Aided Design) software. This course covers the construction and manipulation of drawings, using software to draw and dimension parts. (Prerequisites: None)



MACH 1170 Math for Machinists I, 3 credits

This course covers common fraction, decimal and percentage calculation applications to manufacturing standards. Linear measurements and metric to English conversions will be covered as well as fundamentals of algebra and geometry as they apply to machine trades. (Prerequisites: None)

MACH 1200 Machine Technology III, 3 credits

This course covers advanced milling machine and lathe operation including machine safety, the manufacturing of integrated close tolerance projects with common machine tool and prints. The use of attachments and special processes will be covered. (Prerequisites: None)

MACH 1220 Machine Technology IV, 2 credits

This course covers grinding machine operations in a tool room setting. The manufacturing of integrated close tolerance projects with common grinders. Topics covered include set-ups, form grinding, the use of attachments, and special processes. (Prerequisites: MACH 1100 and MACH 1120)

MACH 1231 Blueprint Reading/CAD II, 1 credit

This course includes standards of graphic communication of engineering drawing principles, orthographic projections, dimensioning, tolerancing and section views. The course makes extensive use of modern software to create engineering drawings and introduce solid modeling. (Prerequisites: None)

MACH 1240 Geometric Dimensioning & Tolerancing, 3 credits

This course establishes a solid understanding of geometric principles and methodologies of geometric dimensioning and tolerancing. Topics covered include symbols, datum's and gauging principles, form and profile, orientation, location and run out tolerances, and virtual condition. We will study the setup and operation of Coordinate Measuring Machine (CMM). (Prerequisites: MACH 1120 and MACH 1130)

MACH 1250 CNC I, 2 credits

This course will introduce the students to the basic fundamentals of computer numerical controls. Topics included are introduction to safety procedures, conversational controls, and operation of various type of CNC machine controls. (Prerequisites: MACH 1100, MACH 1120 and MACH 1130)

MACH 1261 CNC Programming I, 2 credits

This course covers basic programming for CNC (Computer Numeric Control) milling machines along with CNC basic machining language. (Prerequisites: MACH 1170)

MACH 1271 Math for Machinists II, 2 credits

This course will cover geometry used in machine shops. It will include compound angles, plane geometry, trigonometry, oblique triangles, parallel lines, laws of sine, cosine and tangent. (Prerequisites: MACH 1170)

MACH 2310 CNC II, 3 credits

This course will introduce the students to the fundamentals of computer numerical controls. Topics included are introduced to safety procedures, Expose students to setup and editing of operation of various

types CNC machine controls. (Prerequisites: MACH 1250 and MACH 1260) (Co-requisites: MACH 2320)

MACH 2320 CNC III, 3 credits

This course will introduce the students to the advanced fundamentals of computer numerical controls. Topics included are introduced to safety procedures, expose students to setup and editing of operation of various types CNC machine controls. The student will be required to manufacture project from start to finish. (Prerequisites: MACH 1250 and MACH 1260) (Co-requisites: MACH 2310)

MACH 2331 CAM I, 1 credit

This course is an introduction to CAM (Computer Aided Manufacturing) systems. Subjects address the use of 2D basic principles, techniques, and applications of computer numerically controlled machine tools. Includes the planning, use, expansion, and updating of the computerized systems that are used to meet the needs of industry. (Prerequisites: MACH 1120, MACH 1200 and MACH 1231)

MACH 2340 CNC Programming II, 2 credits

This course will cover Intermediate level programming. Topics included such as sub programs, multi fixtures and special function. (Prerequisites: MACH 1260)

MACH 2351 Mold/Die Making Theory, 3 credits

This course covers basic manufacturing fundamentals of mold construction (transfer and injection molds) runners, gates, cores, cavities, injections, ejection, casting, joining, polymers and powder metals. It also consists of basic manufacturing principles of blanking and piercing dies including deformation, sheet metal forming, bending, cutting clearance, punches, pilots, strippers, and die block construction. (Prerequisites: MACH 1200, MACH 1220 and MACH 1240)

MACH 2360 Fixture and Tooling, 4 credits

This course is to gain design knowledge and actual building skills in machining set ups and operations. Course consists of designing tools, gages, simple jigs, and fixtures for; lathe, vertical mills, drill press, band saw, surface grinders, etc., while working on projects that simulate real basic construction practices employed in mass production processes. We will study basic metallurgy. (Prerequisites: MACH 1230, MACH 1240 and MACH 1250)

MACH 2410 Tool and Cutter Grinding, 1 credit

This course covers the basic knowledge and skills needed for grinding cutters as it pertains to the die making and mold making industry (Prerequisites: MACH 1220 and MACH 2360)

MACH 2420 EDM Machining, 2 credits

This course covers the basic fundamentals of conventional E.D.M. theories and operations. Topics included are safety, components, dielectric, electrodes, power supply controls, amperes, electronic envelope, work piece, on-off time, arc gap. Programming and operation of CNC Ram, and Wire. (Prerequisites: MACH 2330)

MACH 2430 CAM II, 2 credits

A study of the advanced 2D and basic 3D principles, techniques, and applications of computer numerically controlled machine tools. The



planning, use, expansion, and updating of computerized systems to meet the needs of industry. An introduction to Computer Aided Manufacturing (CAM) systems. (Prerequisites: MACH 2330)

MACH 2440 CNC Programming III, 1 credit

This course will cover Advanced level programming. Topics included such as multi axis and parametric programming. (Prerequisites: MACH 2340)

MACH 2450 CNC Design and Manufacture, 5 credits

This course covers the advanced machining operations required to design a construct a complete plastic injection mold and a complete blanking die. The use of CNC all manual machine required to manufacture and design will be used. An over view will be presented at the completion of manufacturing. (Prerequisites: MACH 2320, MACH 2330, MACH 2340, MACH 2350 and MACH 2360)

MACH 2461 Multi-Axis Programming, 1 credit

This course is designed to provide an understanding of multi axis programming. This course deals with complex machine programming methods utilized in industry. (Prerequisites: MACH 1172, MACH 2331, MACH 2340) (Co-requisites: MACH 2470)

MACH 2471 Multi-Axis Machining, 3 credits

This course is designed to provide an understanding of multi-axis machining. This course deals with complex setup and machining methods utilized in industry. (Prerequisites: MACH 1172, MACH 2310, MACH 2320, MACH 2331, MACH 2360) (Co-requisites: MACH 2460)

MACH 2510 Multi Axis CNC Programming, 4 credits

This is an advanced course designed to give the student a deeper understanding of multi axis programming. This course deals with complex machine programming methods and will require a prior understanding of "G" and "M" code programming. (Prerequisites: Evaluation Exam through Admissions)

MACH 2520 Multi Axis CNC Programming, 5 credits

This is an advanced course designed to give the student an understanding of multi axis machining. This course deals with complex setup and machining methods and will require a prior understanding of advanced "G" and "M" code programming. (Prerequisites: Evaluation Exam coordinated through Admissions)

Medical Assistant

MAST 1200 Medical Assisting Seminar, 2 credits

This course addresses the legal and ethical issues facing the Medical Assistant profession. (Prerequisites: HLTH 1040; Restricted to the following major: Medical Assistant AAS)

MAST 1300 Medical Administrative I, 2 credits

This course is designed to introduce the student to medical office communication and procedures. Medical reception tasks, document production, insurance coding, medical accounting functions and medical office management will be covered. (Prerequisites: HLTH 1040, ADSC 1003, or 25 words per minute (wpm) keyboarding ability; Restricted to the following major: Medical Assistant AAS)

MAST 1400 Pharmacology I, 2 credits

Pharmacology I is designed to provide an understanding and basic background pharmacology. This course will cover drug classifications, vocabulary, abbreviations, schedules of drugs, and pregnancy categories. In addition, the course will cover the use of drug information sources. Alternative drug therapy, vitamins, minerals, and drug effects on the elderly will be covered. (Prerequisites: HLTH 1005, HLTH 1040; Restricted to the following major: Medical Assistant AAS)

MAST 1500 EKG, 1 credit

This course will demonstrate how to perform a 12-lead electrocardiogram (EKG). Anatomy of the heart and circulatory system will be reviewed. Students will perform EKGs in a simulated lab. (Prerequisites: HLTH 1005; Restricted to the following major: Medical Assistant AAS)

MAST 1600 Laboratory I, 4 credits

This course is designed to introduce the student to clinical laboratory. Basic aspects of laboratory safety, use and maintenance of laboratory equipment, quality controls, urinalysis, and microbiology will be covered in theory and simulated labs. (Prerequisites: HLTH 1005, HLTH 1040, ENGL 1105 or ENGL 2105; Restricted to the following major: Medical Assistant AAS)

MAST 1700 Clinical Procedures I, 3 credits

This course is designed to teach the fundamentals of Medical Assisting in Family Practice, Internal Medicine, and Obstetrics and Gynecology (OB/GYN) and Pediatrics. Medical and surgical asepsis, microbial control, autoclaving, bandaging, instrument identification, minor surgery, medical examination of the patient, documentation, and vital signs will be discussed. (Prerequisites: HLTH 1005, HLTH 1040 and ENGL 1105 or 2105; Restricted to the following major: Medical Assistant AAS)

MAST 2300 Medical Administrative II, 2 credits

Students will simulate being a medical office receptionist. Students will utilize skills they learned in Medical Administrative I. (Co-requisites: MAST 1300; Restricted to the following major: Medical Assistant AAS)

MAST 2400 Pharmacology II, 2 credits

Pharmacology II is designed to continue the study of pharmacology by continuing to use drug information sources. This course will study drug actions, side effects, cautions and patient education as they relate to each body system. (Co-requisite: MAST 1400; Restricted to the following major: Medical Assistant AAS)

MAST 2600 Laboratory II, 4 credits

Laboratory skills are continued in this course. Hematology, coagulation, serology, and chemistry will be discussed and performed in a simulated lab setting. Phlebotomy and capillary punctures will also be discussed and taught. (Prerequisites: MAST 1600; Restricted to the following major: Medical Assistant AAS)



MAST 2700 Clinical Procedures II, 3 credits

This course is designed to cover the fundamentals of drug administration, nutrition, emergency medicine, casting, and fracture care. Physical therapy, geriatrics, and patient education will also be discussed. (Prerequisites: MAST 1700; Co-requisites: MATH 1020; Restricted to the following major: Medical Assistant AAS)

MAST 2900 Externship, 7 credits

This course is designed to provide on-the-job experience. The student will be assigned to work in a physician's office (without compensation) for a total of 320 hours. The student will work under the supervision of clinic personnel performing clinical, laboratory, and administrative duties pertinent to the student's technical training. (Restricted to the following major: Medical Assistant AAS and instructor approval required.)

Mathematics

MATH 0801 Basic Math, 4 credits

This course provides an overview of the use of whole numbers, fractions, decimals, and percents. In addition, the topics of ratio, proportion, measurement, area, perimeter, and algebraic equations will be introduced. Course content will include the application of basic math skills to the solution of occupational situation problems. The course is designed for students who wish to review and improve their basic math skills. (Prerequisites: None)

MATH 0900 Elementary & Intermediate Algebra, 5 credits

This course provides students with those skills and insights from algebra which are necessary to perform well in any college-level mathematics course. Topics include signed numbers, performing arithmetic operations on algebraic expressions and polynomials, factoring polynomials, using negative exponents and scientific notation, solving and graphing linear equations and inequalities, graphing other relations, solving literal equations and apply formulas, solving systems of equations, solving quadratic, exponential and logarithmic equations, and analyzing functions and inverses. (Prerequisites: MATH 0801 or appropriate score on placement test)

MATH 0950 Topics in Intermediate Algebra, 2 credits

This course is a continuation from Elementary Algebra and is designed to expose the student to higher level topics in Algebra. Topics include systems of equations, radical equations, relations and functions, inverse functions, quadratic equations, graphs of functions, and exponential and logarithmic functions. (Prerequisites: MATH 1040 or MATH 1400, or appropriate score on Elementary Algebra placement test)

MATH 1010 Dosage Calculations for Health Care Professionals, 1 credit

The course will include the different systems of measurement (metric, apothecary, and household) and the different equivalents of measure used to convert between the systems. The ratio-proportion method will be used to set up and solve basic dosage calculations, dosage calculations involving conversions, and calculations to reconstitute medications. IV calculations will be performed using IV formulas to calculate drops per minute and milliliters per hour of prescribed IV solution to

be administered. Calculations for adult and pediatric dosages based on body weight and body surface area (BSA) will be performed. (Prerequisites: Meet Accuplacer score of 81 or higher OR have obtained a B or better in MATH 0801 Basic Math, prior to enrolling in the course)

MATH 1020 Math for Healthcare, 2 credits

The student will learn the different systems of measurement (metric, apothecary, and household) and the different equivalents of measure used to convert between the systems using labs to practice the skills. The ratio-proportion and dimensional analysis methods will be used to set up and solve basic dosage calculations, dosage calculations involving conversions, and calculations to reconstitute medications. IV calculations will be performed using IV formulas to calculate drops per minute and milliliters per hour of prescribed IV solution to be administered. Calculations for adult and pediatric dosages based on body weight will be performed. The student will practice intake/output problems. If time permits, the student will learn about preparation of solutions, dilutions and solids. (Prerequisites: Meet Accuplacer score of 81 or higher OR have obtained a "C" or better in MATH 0801 Basic Math, prior to enrolling in the course.)

MATH 1050 Technical Math, 5 credits

This course is a combination of algebra, geometry and trigonometry. Upon completion the student will be able to solve mathematical problems involving signed numbers, algebraic expressions, equations, graphs of linear and non-linear functions, exponents, scientific notation, and systems of measurement. In addition, the student will be able to solve problems utilizing right and non-right triangle trigonometry, vectors, and plane and solid geometry. Applications for technical trades will be emphasized. (Prerequisites: MATH 0801 or appropriate score on placement test)

MATH 1070 Technical Mathematics I, 3 credits

This course is a combination of applied algebra and geometry. The content includes solving mathematical problems involving signed numbers, algebraic expressions, linear equations, graphs of linear and non-linear functions, exponents, scientific notation, and systems of measurement with unit analysis. Geometry topics include solving problems utilizing areas and volumes, similar triangles and the Pythagorean Theorem. Applications for technical trades will be emphasized. (Prerequisites: MATH 0801 or appropriate score on placement test)

MATH 1080 Technical Mathematics II, 2 credits

This course is a combination of plane and circle geometry and right and non-right triangle trigonometry. Topics covered include solving mathematical problems by applying plane and circle geometry postulates. Right triangle trigonometry and non-right triangle trigonometry will also be covered, including the laws of sine and cosine. Practical applications for technical trades, including layout problems, will be emphasized. (Prerequisites: MATH 1070 or appropriate algebra Accuplacer score)

MATH 1400 Algebra & Trigonometry, 5 credits

This course combines material taken from algebra and trigonometry. Topics covered include signed numbers, exponents, algebraic expressions, solving equations, proportion, variation, and systems of



measurement. Graphs, scientific and engineering notation, and unit analysis will be used. Right triangle trigonometry applications and trig functions in any quadrant will also be included. Special attention will be given to vectors and sine wave analysis. Applications for technical trades will be included in the course curriculum. (Prerequisites: MATH 0801 or appropriate score on placement test)

MATH 1500 (MnTC 4) Mathematical Ideas, 3 credits

This course builds a mathematical foundation in logic, set theory, geometry, finance, probability, and statistics for decision making. Students will also apply these concepts and higher order problem solving skills to everyday situations. This course is part of the Minnesota Transfer Curriculum. (Prerequisites: MATH 0900 [Elementary and Intermediate Algebra] or MATH 0950 [Topics in Intermediate Algebra], or appropriate score on placement test)

MATH 1550 (MnTC 4) Introduction to Statistics, 4cr

This course is an introduction to the principles of statistics, and data analysis using real-world problems. Topics include descriptive statistical measures, probability, graphs and distributions, hypothesis testing, correlation, and linear regression and inferential statistics. This course is part of the Minnesota Transfer Curriculum (Prerequisites: MATH 0900 [Algebra], or MATH1080 [Technical Math], or MATH 1400 [Algebra & Trig.], or appropriate score on college-level math placement test).

MATH 1600 (MnTC 4) College Algebra, 4 credits

This MN Transfer course is an extension of concepts learned in Elementary and Intermediate Algebra. The course includes analyzing and graphing functions and function inverses including polynomial, radical, rational, exponential, and logarithmic functions. Additional topics are systems of equations and inequalities, conic sections, and matrix algebra. Supplementary topics may include sequences, series, and probability. (Prerequisites: MATH 0900 or MATH 0950 or appropriate score on placement test, or instructor consent) (4 Credits Lecture/0 Credit Lab)

MATH 1650 (MnTC 4) College Trigonometry, 3 credits

This course includes the topics of trigonometric functions and right triangle trigonometry, graphs of the trigonometric functions, trigonometric equations and identities, inverse trigonometric functions, laws of sines and cosines, vectors, trigonometric forms of complex numbers, De Moivre's Theorem, and polar and parametric equations and their graphs. (Prerequisites: MATH 0900 or MATH 0950 or appropriate score on placement test or instructor consent) (3 Credits Lecture/0 Credit Lab)

MATH 1700 (MnTC 4) Pre-Calculus, 5 credits

This MN Transfer course is an extension of concepts learned in Elementary and Intermediate Algebra. The course consists of topics from MATH 1600 and MATH 1650. It is intended for students who have had three years of high school math, including trigonometry. The course includes analyzing and graphing functions and function inverses including polynomial, radical, rational, exponential, and logarithmic functions. It also includes systems of equations and inequalities, and matrices. Additional topics are trigonometric functions and right triangle trigonometry, graphs of the trigonometric functions,

trigonometric equations and identities, inverse trigonometric functions, laws of sines and cosines, vectors, and trigonometric forms of complex numbers, Supplementary topics may include conic sections, sequences, series, and probability. (Prerequisites: MATH 0900 or MATH 0950 or MATH 1400 or appropriate score on placement test) (5 Credits Lecture/0 Credit Lab)

Mechanical Drafting and Design

MECH 1200 Mechanical CAD I, 4 credits

This is the introductory CAD (Computer Aided Drafting) course covering the current version of AutoCAD as a technical drafting tool and operational techniques related to its use. The course will concentrate on drawing set-up, fundamental construction techniques, fundamental dimensioning and plotting. (Prerequisites: None)

MECH 1216 Drafting Standards, 5 credits

This course covers the basic concepts of interpreting engineering drawings and completing projects to understand the ANSI (American National Standards Institute) standards. Topics included are multi-view drawings, fundamental dimensioning practices, symbol identification, fasteners, and other standardized details. (Prerequisites: None)

MECH 1228 Materials & Processes, 4 credits

This course covers various engineering materials and processes that will assist the drafter in making decisions of materials and processes that best meet the needs of a product. It introduces the student to common materials and processes that are used in industry today. It also delves into the testing and research of materials, processes and part design to aid in reduction of part failure and understanding of basic structural design concepts. (Prerequisites: MATH 1050)

MECH 1243 Descriptive Geometry & Applications, 3 credits

This course is designed to graphically solve problems which deal with points, lines, and planes and their relationship in space. Processes to determine true length of lines, sizes, distances, and angles of various geometric entities using the auxiliary view concept will be covered. It allows the student the opportunity to use 3-D/Isometric concepts to show how parts are assembled. (Prerequisites: MECH 1200)

MECH 2010 Power Transmission Drafting & Design, 3 credits

This course covers the design procedures dealing with mechanical components used in industry. The components need to be researched for engineering data used to complete the design correctly. Students will work to complete the Capstone Project which is then evaluated against program and industry standards. Some of the components used are pulleys, belts, gears, sprockets, and chains. (Prerequisites: MECH 2064 or MECH 2074, or MECH 2084)

MECH 2031 Process Design Drafting, 3 credits

This course covers the design concepts for welded products, the proper procedures for developing sheet metal drawings, the information needed to create casting drawings, and the Engineering change order process (ECN/ECR/ECO) used in industry today. (Prerequisites: MECH 1200 or MECH 2064 or MECH 2074)



MECH 2045 Design Projects, 4 credits

This course stresses the design procedures, such as layout and design, detailing parts, checking and final assembly in a team concept. Strength of material concepts are used to meet industry standards. Trigonometry is used to solve design problems with all concepts well documented. Instruction and discussion of the general principles of employee/employer relationship concepts and creating a resume and cover letter are a part of this course. Students will participate in a team project that explores the effect of modern social networking on industry. (Prerequisites: READ 0900, or appropriate placement score and ENGL 0101, or appropriate placement score, MECH 2064 or MECH 2074 or MECH 2084)

MECH 2055 Geometric Dimensioning and Tolerancing, 3 credits

This course covers terms, symbols, and their applications as related to function and relationship in the design process. Drawings will be produced using concepts covered in the course. GD&T Standards per recent industry standards will be covered. (Prerequisites: MECH 1216)

MECH 2064 Introduction to Inventor, 4 credits

This course covers the basic part and assembly modeling techniques using Inventor Software. The class will explore sketching tools, part modeling tools, assembly modeling tools, detail drawings, working drawings, and bills of materials. (Prerequisites: MECH 1200 or instructor approval)

MECH 2074 Solidworks, 4 credits

This course covers the basics of parametrics solid modeling using the latest SolidWorks software. Parametric sketching, modeling and assembling in 3D will be covered. (Prerequisites: MECH 1200)

MECH 2080 Special Projects, 2 credits

This course provides the opportunity to advance industry skills. The students work in an applied drafting environment to learn objectives mutually agreed to by the instructor. (Prerequisites: MECH 2064 or MECH 2074 or MECH 2084)

MECH 2084 Introduction to ProE/Creo, 4 credits

This course covers the basic part and assembly modeling techniques using the latest software from ProE/Creo (PTC software). The class will explore sketching tools, part modeling tools, assembly modeling tools, detail drawings, working drawings, and bills of materials. (Prerequisites: MECH 1200)

MECH 2090 Advanced CAD, 3 credits

This course covers advanced parametric solid modeling appropriate software as the design tool chosen at the beginning or the course and utilized throughout. Course explores complicated aspects of using design sketches to form solids through use of lofts, guided sweeps, design tables, configurations, and non-linear surfaces. Software specific functionality will be explored. Course will explain and demonstrate Top-Down Assembly modeling techniques, basic Finite Element Analysis and animation. Course stresses ease of use and necessity to understand Design Intent. (Prerequisites: MECH 2064 or MECH 2074 or MECH 2084)

Natural Science**NSCI 1020 (MnTC 3, 10) Plant Science, 3 credits**

This course is an overview of the taxonomic, structural, and growth characteristics of higher living plants. An understanding of plant structure and their growth processes is a cornerstone to all other horticulture knowledge. Topics covered include plant structure, plant classification, plant growth processes and basic genetic principles. (Prerequisites: None) (2 Credits Lecture/1 Credit Lab)

NSCI 1030 (MnTC 3, 10) Introduction to Environmental Science, 3 credits

This MN Transfer course is an introductory class to Environmental Science. It is designed to familiarize the student with key environmental issues. The student will gain a better understanding of natural systems and how humans interact and steward those systems. Simulations, Laboratories, and field experiments will be a part of the learning and the student will interpret, evaluate and communicate their findings both orally and in writing. (Prerequisites: None) (2 Credits Lecture/1 Credit Lab)

Practical Nursing**NURS 1400 Foundations of Nursing, 3 credits**

Foundations of Nursing introduces the student to the role of the practical nurse in health care. The student is provided a theoretical foundation for basic assessment and nursing skills. The nursing process is introduced, providing the student a beginning framework for decision making. NURS 1405 Foundations of Nursing Lab is a companion course and must be taken in conjunction with NURS 1400 Foundations of Nursing. (Prerequisites: Must be accepted into the Practical Nursing program for the current semester) (Co-requisites: Current enrollment or successful completion of HLTH 1005, MATH 1010, NURS 1410, and NURS 1420. Must be enrolled in NURS 1405)

NURS 1405 Foundations of Nursing Lab, 2 credits

Foundations of Nursing Lab is the lab companion course to NURS 1400 Foundations of Nursing. The student is introduced to basic assessment and nursing skills, including techniques of administering medications and calculating dosages using critical thinking skills. NURS 1400 Foundations of Nursing is a companion course and must be taken in conjunction with NURS 1405 Foundations of Nursing Lab. (Prerequisites: Must be accepted into the Practical Nursing program for the current semester) (Co-requisites: Current enrollment or successful completion of HLTH 1005, MATH 1010, NURS 1410 and NURS 1420. Must be enrolled in NURS 1400)

NURS 1410 Health Promotions Across the Lifespan, 4 credits

Health Promotion Across the Lifespan I examines pathophysiological conditions affecting patients from childhood to older adults. The nursing process is emphasized with the integration of the principles of therapeutic communication, nutrition and pharmacological interventions in promoting the health of patients across the lifespan. Specific emphasis includes critical thinking and nursing judgment in patient care. (Prerequisites: Must be accepted into the Practical Nursing program for the current semester) (Co-requisites: Current enrollment or successful completion of HLTH 1005, MATH 1010, NURS 1400, NURS 1405, and NURS 1420)



NURS 1420 Clinical Application I, 2 credits

Clinical Application I will use the nursing process to implement safe, patient relationship-centered care to adults. The student will assess and collect data, implement skills, document findings and reinforce teaching plans for individual patients. The course assists in the development of effective communication skills while working with individual patients and interprofessional team members in a simulated lab setting with clinical application. (Prerequisites: Must be accepted into the Practical Nursing program for the current semester) (Co-requisites: Current enrollment or successful completion of HLTH 1005, MATH 1010, NURS 1400, NURS 1405, and NURS 1410)

NURS 1500 Transition to Nursing Practice, 2 credits

Transition to Nursing Practice facilitates the transition from student nurse to entry level practical nurse. Application of the nursing process and the use of therapeutic communication, prioritizing, decision-making, goal-setting, and critical thinking skills are emphasized through small group discussions and clinical based scenarios. Ethical, legal and moral issues, state licensure requirements and nursing practice standards for the Licensed Practical Nurse are examined. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1510, NURS 1515, NURS 1520, NURS 1530, NURS 1540 and NURS 1545)

NURS 1510 Health Promotion Across the Lifespan II, 5 credits

Health Promotion Across the Lifespan II continues to examine pathophysiological conditions affecting patients from childhood to older adults. The nursing process is emphasized with the integration of the principles of therapeutic communication, nutrition, and pharmacological interventions in promoting the health of patients across the lifespan. Specific emphasis includes advanced critical thinking and nursing judgment in patient care. The student is provided with the theoretical foundation of advanced nursing skills. NURS 1515 Health Promotion Across the Lifespan II Lab is a companion course and must be taken in conjunction with NURS 1510 Health Promotion Across the Lifespan II. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1500, NURS 1520, NURS 1530, NURS 1540 and NURS 1545. Must be enrolled in NURS 1515)

NURS 1515 Health Promotion Across the Lifespan II Lab, 2 credits

Health Promotion Across the Lifespan II Lab is the lab companion course to NURS 1510 Health Promotion Across the Lifespan II. The student is introduced to advanced nursing skills in the lab setting. Specific emphasis includes advanced critical thinking, nursing judgment in patient care, and performance of advanced nursing skills. NURS 1510 Health Promotion Across the Lifespan II is a companion course and must be taken in conjunction with NURS 1515 Health Promotion Across the Lifespan II. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1500, NURS 1520, NURS 1530, NURS 1540 and NURS 1545. Must be enrolled in NURS 1510)

NURS 1520 Clinical Application II, 5 credits

Clinical Application II will use the nursing process to implement safe, patient relationship-centered care to patients across the life span. Students will demonstrate and apply problem solving, prioritization, focused nursing assessments, evidenced based nursing interventions, and critical thinking skills. Emphasis will be placed on developing leadership qualities in the management of patient care. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1500, NURS 1510, NURS 1515, NURS 1530, NURS 1540 and NURS 1545)

NURS 1530 Psychosocial Nursing, 2 credits

Psychosocial Nursing focuses on the care of patients with psychiatric or behavioral conditions while promoting and maintaining the mental health of individuals. The nursing process is emphasized with the integration of the principles of therapeutic communication and pharmacological interventions in promoting the health of individual patients across the lifespan. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1500, NURS 1510, NURS 1515, NURS 1520, NURS 1540 and NURS 1545)

NURS 1540 Family Centered Nursing Care, 1 credit

Family Centered Nursing Care provides a foundation in the care of women during the prenatal, intrapartum, and postpartum period. The nursing care of both well and compromised neonates and children will be explored. Importance is placed on providing family-centered nursing care. The nursing process is emphasized with the integration of the principles of therapeutic communication and pharmacological interventions in promoting the health of patients. Specific emphasis includes critical thinking and nursing judgment. The course provides a theoretical foundation for family-centered nursing care skills. NURS 1545 Family Centered Nursing Care Clinical Application is a companion course and must be taken in conjunction with NURS 1540 Family Centered Nursing Care. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful completion of NURS 1500, NURS 1510, NURS 1515, NURS 1520, and NURS 1530. Must be enrolled in NURS 1545)

NURS 1545 Family Centered Nursing Care Clinical Application, 1 credit

Family-Centered Nursing Care: Clinical Application is the clinical companion course to NURS 1540 Family-Centered Nursing Care. The course will assist in the development of family-centered nursing care skills in a simulated lab setting with clinical application. Specific emphasis includes critical thinking, nursing judgment, and performance of skills in a simulated lab setting with clinical application. NURS 1540 Family-Centered Nursing Care is a companion course and must be taken in conjunction with NURS 1545 Family-Centered Nursing Care: Clinical Application. (Prerequisites: HLTH 1005, MATH 1010, NURS 1400, NURS 1405, NURS 1410, NURS 1420 and ENGL 1105) (Co-requisites: Current enrollment or successful



completion of NURS 1500, NURS 1510, NURS 1515, NURS 1520, and NURS 1530. Must be enrolled in NURS 1540)

Philosophy

PHIL 1200 (Goal 9) Technology, Ethics and Society, 3 credits

This course is a practical overview of the key issues and questions related to the ethical use of technology. The course will survey the major ethical theories and explore the general relationship between society's ethical standards and emerging technologies. Further inquiry will identify the impact technology has on current ethical and social issues surrounding such areas as information technology, healthcare, business, nanotechnology, government, artificial intelligence/robotics and whistleblowing. (Prerequisites: None)

Psychology

PSYC 1405 (MnTC 5) Lifespan Development, 4 credits

Lifespan Development addresses major theories of human development. The interdependence of physical, cognitive and social development throughout the lifespan is examined. Particular emphasis is placed on Erikson, Sears, Piaget and adult developmental research. Integration of interpersonal and written communication skills, as well as critical thinking will be included. (Prerequisites: None) (4 Credits Lecture/0 Credit Lab)

PSYC 1505 (MnTC 5) General Psychology, 4 credits

This course is designed to give students a broad introduction to the field of psychology. Emphasis will be placed on research methodology used in psychology, as well as key concepts such as identity, learning, neuroscience, memory, personality, communication, relationships and abnormal psychology. (Prerequisites: None) (4 Credits Lecture/0 Credit Lab)

PSYC 1605 (MnTC 5) Abnormal Psychology, 4 credits

This course explores the nature and causes of abnormal behavior. Emphasis is placed on the major categories used to classify abnormal behavior, along with the diagnostic criteria used. Various mental illnesses, such as depression, schizophrenia, anxiety, and eating disorders are discussed. (Prerequisites: PSYC 1505 General Psychology) (4 Credits Lecture/0 Credit Lab)

Reading

READ 0900 Reading Skills, 4 credits

Students in this course will build reading skills for success in technical programs and life-long learning. In order to improve comprehension, students will learn to identify main ideas and implied main ideas, organizational patterns, and supporting details. Students will gain mastery over new vocabulary through using word parts, context clues, and the dictionary. In addition, students will gain an awareness of the reading process and analyze their reading and study habits. Reading various texts, such as magazines, fiction, essays, and college textbook chapters will enable students to make significant gains in reading fluency, stamina, comprehension and recall.

Supervisory Management

SMGT 1600 Management Education Planning, 2 credits

This course guides the student through an individualized education plan for the Supervisory Management Program. Students will address their personal and professional goals. Students will be exposed to the accelerative learning methodology. (Prerequisites: None)

SMGT 1602 Supervision Fundamentals, 3 credits

The course teaches the participant current principles, concepts, responsibilities and practical application skills fundamental to success as a supervisor. Students will participate in hands-on projects in class and at work dealing with topics such as leadership, communication, employee motivation, delegation, planning, problem solving, organizing and controlling. Emphasis will be on achieving organizational and individual success by working with and empowering others. (Prerequisites: None)

SMGT 1604 Interpersonal Skills/Customer Service, 2 credits

This course provides the learner with concepts and tools to learn and demonstrate interpersonal skills in the workplace. Participants will identify and demonstrate skills specific to supervisory responsibilities such as providing feedback, collaborating with peers, dealing with conflict, gaining support from others, and getting ideas across. In addition, participants will learn to listen effectively, discover how to give clear directions, explore the emotional barriers to effective communication and develop strategies for working with difficult situations. Emphasis will be placed on creating a culture supportive of making customer and focused decisions and motivating others to service excellence. (Prerequisites: None)

SMGT 1606 Managing Change & Conflict, 2 credits

This course provides students with tools and techniques to keep pace with the rapid and dramatic changes in the workplace today. Participants will learn to become a change leader by effectively identifying and overcoming resistance to change by creating a work environment where change is expected and viewed as positive. This course will focus on providing students with the tools necessary to lead their work groups through the change process. (Prerequisites: None)

SMGT 1608 Personal Leadership, 3 credits

This course will provide the participant with the tools and strategies to create an increased level of personal productivity from which they can more effectively solve problems and develop strong personal and professional relationships. Course content includes time management, stress management and the personal habits of effective people. (Prerequisites: None)

SMGT 1610 Field Study I, 2 credits

This course is designed to challenge the participant to apply the content of the Supervisory Leadership Certificate to a problem, challenge or situation in the workplace. Participants will demonstrate this application of knowledge to their classmates as well as to the course instructor. (Prerequisites: None)



SMGT 1612 Human Resource Management, 3 credits

This course focuses on human resource areas of the supervisor's role, including ethical issues, development of individual potential, and application skills/strategies for supervisors to perform their role in the human resource functions of employee selection, and in managing employee relations. (Prerequisites: None)

SMGT 1614 Performance Management, 3 credits

Participants will learn procedures for setting performance standards, measuring results, and discussing performance. Participants will also learn skills necessary for conducting an effective performance review including how to plan for a performance review meeting, how to develop a performance improvement plan, how to provide for periodic progress reviews and how to practice interim coaching skills. (Prerequisites: None)

SMGT 1616 Employment Law, 2 credits

This course allows the participant to examine workplace issues impacting supervisory responsibilities such as employee hiring decisions, discrimination, unemployment compensation, worker's compensation, Fair Labor Standards Act, employee safety and health, workplace harassment, documentation and termination. (Prerequisites: None)

SMGT 1618 Employee Training & Coaching, 3 credits

This course will focus on practical application skills necessary for a supervisor to effectively coach employees to improve performance and/or behavior. Participants will learn specific coaching strategies of tutoring, mentoring, counseling and confronting in application projects as required course outcomes. In addition, the course will focus on practical application skills for supervisors to design and deliver effective training sessions at work. Emphasis will be on meeting identified training needs, using effective adult learning techniques, and transferring the training to the workplace. (Prerequisites: None)

SMGT 1620 Work Teams & Facilitation Skills, 2 credits

This course will focus on the practical application of skills necessary for effective team development and leadership as well as the skills necessary for the supervisor to plan, prepare, conduct and evaluate productive meetings. (Prerequisites: None)

SMGT 1622 Field Study II, 2 credits

This course is designed to challenge the participant to apply content of the Human Resource Development Certificate to a problem, challenge or situation in their workplace. Participants will demonstrate this application of knowledge to their classmates as well as the course instructor. (Prerequisites: None)

SMGT 1624 Quality Tools & Creativity, 3 credits

In this course, participants will learn principles and the use of tools for quality and continuous improvement as well as to provide participants with tools and techniques to "tune in" to their own innate creativity to help them launch major projects or untangle difficult situations. (Prerequisites: None)

SMGT 1626 Management of Safety, 2 credits

This course will provide the participant with regulations and guidelines set by OSHA, MPCA, etc. for maintaining worker safety and

rules compliance in the workplace. Supervisory responsibility in safety training, reporting, communication, industrial hygiene, motivation, and enforcement of policies will be emphasized. Other areas of importance, including workers' compensation, cost control, accident investigation techniques and policy and program development will be covered. (Prerequisites: None)

SMGT 1628 Documentation/Written Communication Skills, 2 credits

This course is specifically designed to provide students with the skills necessary for supervisors to effectively and accurately document performance and communicate with employees using a variety of written formats. The course will emphasize the importance of determining the "who, what, why, where and how" in written communications, resulting in clear communication to employees. Typical situations for supervisors requiring course learning objectives including providing performance feedback, documenting a safety or discipline incident, giving precise directions or preparing a formal report. (Prerequisites: None)

SMGT 1630 Field Study III, 2 credits

This course is designed to challenge the participant to apply content of the Quality Supervision certificate to a problem, challenge or situation in their workplace. Participants will demonstrate this application of knowledge to their classmates as well as to the course instructor. (Prerequisites: None)

SMGT 2600 Accounting for Non-Financial Managers, 2 credits

This course is specifically designed to provide participants with the management planning and accounting control methods necessary for supervisors. These skills are essential for supervisors to be able to understand the role of budgeting in management decision making. (Prerequisites: None)

SMGT 2602 Project Management/Problem Solving, 3 credits

This course will focus on how to lead problem-solving sessions involving work groups in the problem solving process. In addition, the course will focus on preparation and use of tools for managing and controlling complex projects with definite beginning and ending points. Emphasis will be on managing projects with many simultaneous activities and dimensions.

SMGT 2604 Leadership Development, 2 credits

This course provides the learner with leadership concepts and tools to enhance and improve their ability to motivate and positively influence others. Emphasis will be placed on creating positive and powerful relationships based on principles and values. In addition to leadership concepts and skills, the ethical considerations of leadership will be discussed. Students will participate in team projects, small group discussions, and will complete a personal leadership action plan as one of the required course outcomes.

Social Science**SOSC 1010 (MnTC 5, 7) Introduction to Sociology, 3 credits**

This course is an introduction to sociology as a way of understanding the world. Sociology is a field of study that explains social, political,



and economic phenomena in terms of social structures, social forces, and group relations. The course will introduce students to the field by focusing on several important sociological topics, including socialization, culture, the social construction of knowledge, inequality, race and ethnic relations, poverty, and political sociology. (Prerequisites: None) (3 Credits Lecture/0 Credit Lab)

SOSC 2000 (MnTC 5) Sociology of Work, 4 credits

Introduction to social science through studying how people work. Articles from several disciplines will be studied including those from economics, history, sociology, and others. Topics discussed will include the work ethic, changing roles of men and women in the work force, unionism, moving from agrarian to industrial to information societies, globalization and effects on leisure time. (Prerequisites: None) (4 Credits Lecture/0 Credit Lab)

Speech

SPCH 1120 (MnTC 1) Public Speaking, 3 credits

This is an introductory speech course that focuses on the process of formal public speaking, with emphasis on comfortable and effective delivery of speeches. This course is designed to provide students with basic theories and skills that are essential to effective public speaking. Students will deliver both informative and persuasive speeches in a variety of public speaking situations. Each student will also learn to analyze, critique, and evaluate the speeches of others. Videotaping and self-assessment are integral components of this class. Additional course work will include studying the group process, impromptu speaking, and dramatic reading. This course depends on student performance and active participation. (Prerequisites: None) (3 Credits Lecture/0 Credit Lab)

SPCH 1200 (MnTC 1, 7) Interpersonal Communication, 3 credits

Interpersonal Communication is an introductory course designed to facilitate an understanding of the communication contexts, concepts and skills involved in day-to-day interaction. Emphasis is on such topics as: awareness, self-concept, perception, attitude, cultural differences and similarities, and relational and self-development. This course focuses on developing communication understanding, including language; speaking; non-verbal communication; conflict resolution; male-female communication; and listening techniques. (Prerequisites: None) (3 Credits Lecture/0 Credit Lab)

SPCH 1500 (MnTC 1, 7) Intercultural Communication, 3 credits

Speaking the same language does not guarantee effective communication when people come from different cultures. Increasing diversity in the workplace combined with the globalization of business require professionals to become better communicators across cultures. This course provides training in understanding the importance of intercultural communication and theories. Topics covered include: definitions of communication; definitions of culture and diversity of cultural patterns; cultural variables influencing communication, such as language, non-verbal behavior, perception, values, and beliefs; factors that facilitate or inhibit intercultural communication; and examination of American culture in comparison to other cultures. (Prerequisites: None) (3 Credits Lecture/0 Credit Lab)

Surgical Technology

SURG 1003 Sterile Processing, 3 credits

The course will introduce various surgical instruments, the classification and use(s), including the process of cleaning, decontamination, disinfection, and sterilization of equipment and supplies used in the surgical services department. Distribution and management of supplies to all customer service areas is also addressed for health care settings. (Prerequisites: HLTH 1040 and BIOL 2100, Co-requisites: SURG 1005 and BIOL 2200)

SURG 1005 Surgical Microbiology, 2 credits

This course addresses natural and artificial body defense mechanisms and the methods by which infectious diseases are recognized, treated, transmitted, and prevented. Disinfection and sterilization are also included. Content covers the application of aseptic technique and various environmental controls. (Prerequisites: HLTH 1040 and BIOL 2100) (Co-requisites: SURG 1003 and BIOL 2200)

SURG 1010 Surgical Pharmacology, 2 credits

This course is designed to provide knowledge of various routes of drug administration, effects, and side effects. It will encompass a comprehensive knowledge of the many classifications of drugs. Also included will be instruction in the values for fluid and weight measures. Emphasis will be placed on legal and safety aspects of drug administration including a medication policy (Prerequisites: None).

SURG 1026 Operating Room Theory, 2 credits

Operating Room Theory will introduce concepts related to the surgical experience. Theory includes safe patient care, principles of aseptic technique, professional standards in the operating room environment and the perioperative process. (Prerequisites: Successful completion of the Sterile Processing certificate)

SURG 1027 Operating Room Techniques, 4 credits

Operating Room Techniques teaches the basic practical concepts, principles, skills, and professional standards required for clinical practice. This course must be completed the semester prior to clinical. (Prerequisites: None) (Co-requisites: SURG 1010, SURG 1026 and SURG 1035)

SURG 1035 Operating Room Procedures I, 4 credits

This course introduces concepts of basic procedures performed in the operating room. Included will be anatomy, illness/abnormalities, instrumentation, and the perioperative process. (Prerequisites: None) (Co-requisites: SURG 1010, SURG 1026 and SURG 1027)

SURG 1037 Operating Room Procedures II, 4 credits

This course will expand the concepts and procedures addressed in SURG 1035, OR Procedures I. Included will be anatomy, illness/abnormalities, instrumentation, and the perioperative process. (Prerequisites: SURG 1005, SURG 1010, SURG 1026, SURG 1027, SURG 1035) (Co-requisites: SURG 2000)

SURG 2000 Operating Room Clinical, 16 credits

In this clinical laboratory course, the student will assist with selected procedures in a hospital setting. The course will implement skills



learned in prior Surgical Technology theory and laboratory courses. (Prerequisites: Successful completion of SURG 1010, SURG 1026, SURG 1027 and SURG 1035) (Co-requisites: SURG 1037)

Turf and Landscaping

TURF 1210 Turfgrass & Grounds Management, 3 credits

This course will present an integration of facilities operations, turfgrass theory, and effective and environmentally sound management practices. The production of high quality turfgrass requires specialized turf management skills. Understanding and utilizing these management skills allows individuals to maintain high quality turf while being environmentally friendly. Topics include the turfgrass management practices of cultivation, thatch control, mowing, spiking, golf course site maintenance, and their effects on our environment. (Prerequisites: None)

TURF 1220 Introduction to Turfgrass Species, 3 credits

The development and culture of turfgrass is important in many societies for functional, recreational, and ornamental reasons. A thorough understanding of common turfgrasses and their culture is an important tool in the management of cultured turf. This course is designed to cover topics in turfgrass structures, growth processes, warm/cool season turfgrasses, cultural practices, and seed blends. (Prerequisites: None)

TURF 1230 Landscape Construction, 3 credits

Landscape construction features are present in the landscape for functional and aesthetic value. The turf industry uses many different landscape materials in their development. When properly designed and constructed, retaining walls, patios and walkways add character and value to any environmental landscape. Construction materials covered included brick, natural stone, concrete, wood and synthetic products. Topics presented in this course include the study of construction materials, construction theory and installation techniques. Actual projects will be constructed during the presentation of the course. (Prerequisites: None)

TURF 1240 Turfgrass Diseases, 2 credits

This course is designed to introduce diseases that can affect turfgrass under high intensity management situations. Turfgrass diseases may be caused by a wide variety of plant pathogens. By understanding the interactions between plant pathogens and the turf environment, individuals will be better able to successfully manage the culture of turfgrass. Topics covered in this course include the study of specific turfgrass diseases and their interaction with cultural practices. (Prerequisites: None)

TURF 1250 Golf Course Construction & Design, 3 credits

The knowledge and skills necessary to construct or renovate the components of a golf course are critical in enhancing the quality of both golf play and course layout. This comprehensive course will allow you to experience both the primary design principles as well as the actual construction of golf course greens, tees, fairways, roughs, and bunkers. (Prerequisites: None)

TURF 1255 Turf Power Equipment I, 2 credits

This course focuses on the operation and maintenance of small turf power equipment such as hand mowers, weed whips, chainsaws, leaf blowers and sweepers. Topics covered will include troubleshooting small air cooled two and four stroke cycle engines, examining their operating principles, fuel systems, ignition systems, and lubrication systems. (Prerequisites: None)

TURF 1260 Turf Power & Equipment II, 3 credits

The proper service and maintenance of turf power equipment is essential in managing any turfgrass and grounds enterprise. This course is designed to provide you with experience in turf power equipment servicing procedures. Topics covered in this course include servicing of turf power equipment and drive trains, sharpening of rotary and reel mowers, maintaining hydraulic systems and components, as well as maintaining mowers and golf course implements. (Prerequisites: None)

TURF 1270 Supervised Occupational Experience, 6 credits

The Golf Course and Turfgrass Management supervised occupational experience provides an opportunity for students to apply and integrate classroom and laboratory knowledge to actual work situations. The intent of the SOE is to provide a supervised work experience in order for students to build their expertise and proficiency with turf and grounds skills as well as enhance their own problem solving abilities. The SOE structure allows for students to utilize program content goals in skill building, apply to special problem learning situations, and interact in at least one student-employer seminar. (Prerequisites: Successful completion of a minimum of 20 technical credits and has a minimum 2.0 GPA)

TURF 1280 Golf Course Planning & Operations, 3 credits

This course covers golf course financial planning which is a critical work function of golf course superintendents. Understanding and analyzing golf course budget expenditures in order to develop sound financial plans requires both financial and critical thinking skills. This comprehensive course will allow the student to experience the breadth of golf course financial planning. Course topics include expenditure planning, equipment specification and purchasing, equipment supply cost projections, equipment parts and repair, fertilizer/pesticide cost and purchasing, irrigation supplies and cost, and budget preparation techniques. (Prerequisites: None)

TURF 1300 Irrigation Installation & Design, 3 credits

Irrigation Installation and Design is a course, which will allow the golf course and grounds management personnel to gain experience in the methods of installing and designing a full or sectional golf course irrigation system. Topics covered in this course include the installation of irrigation components and using the irrigation components to design a golf course irrigation system. (Prerequisites: None)

TURF 1310 Sports Turf Management, 3 credits

This course is designed to introduce students to the maintenance and construction of sports fields; emphasis on football and baseball fields. Topics discussed include turfgrass species and cultivar selection, fertilizer programs, drainage systems, overseeding, irrigation, field safety, design and construction of sports fields, and budget proposal planning. (Prerequisites: None)



TURF 1320 Spanish for the Workplace, 3 credits

This course provides an introduction to basic conversation and communication skills in Spanish, and cross-cultural skills for working with Spanish speakers in the Horticultural industry, emphasizing the use of vocabulary and expressions common in the workplace. (Prerequisites: None)

TURF 1515 Supervised Occupational Experience, 3 credits

The Golf Course and Turfgrass Grounds Management Fall Supervised Occupational Experience (SOE) provides an opportunity for students to apply and integrate classroom and laboratory knowledge to specific work activities associated with late season grounds management. The intent of this SOE is to provide the student the opportunity to develop expertise and proficiency with turf and grounds skills not acquired during the spring SOE. Summer growing season and late-season management present special learning situations, problem solving opportunities, and student- employer interaction. The SOE structure is defined in the SOE guidelines. (Prerequisites: TURF1270 and must have a minimum GPA of 2.0)

Welding

WELD 1002 Math for Welders, 1 credit

Math skills are essential for welders that read prints, layout, fit-up, fabricate or design welded structures. This course will review the basic math concepts required to be a successful welder. Topics covered will include addition, subtraction, multiplication and division of whole numbers, fractions, and decimals. Also included are direct measurements, using both English and System International units, computed measurement, and stretch outs. (Prerequisites: None)

WELD 1004 Oxy-Fuel Applications, 1 credit

This course focuses on the hand skills, safety and knowledge needed to be proficient with oxy-fuel brazing and oxy-fuel cutting processes. Also covered are: Oxy- fuel track cutting, carbon arc gouging, plasma cutting and gouging. (Prerequisites: None)

WELD 1006 Oxy-Fuel Processes, 1 credit

This course focuses on Oxy-Fuel safety and background knowledge needed to be proficient with oxy-fuel brazing and oxy-fuel cutting processes. (Prerequisites: None)

WELD 1008 Blueprint Reading I, 2 credits

This course covers basic lines, basic views, title block information, dimensions, structural shapes, auxiliary views, section views, detail prints, welding symbols and other various blueprint information. (Prerequisites: None)

WELD 1012 Processes & Power Sources I, 3 credits

This course covers the basic terminology, fundamentals, design and application of welding processes and power sources. (Prerequisites: None)

WELD 1014 Gas Tungsten Arc Welding I, 3 credits

This course focuses on the Gas Tungsten Arc Welding process, welding carbon and stainless steel fillet and groove welds in all positions.

Gas Tungsten Arc Welding knowledge and safety are also covered. (Prerequisites: None)

WELD 1016 Gas Metal Arc Welding I, 3 credits

This course covers hands on training with the Gas Metal Arc Welding process, using short circuit transfer on carbon steels. Gas Metal Arc Welding safety, knowledge and variables are also covered. (Prerequisites: None)

WELD 1018 Shielded Metal Arc Welding I, 3 credits

This course covers hands on training utilizing the Shielded Metal Arc Welding (stick) process with 6010 and 7018 filler metals on carbon steels in various positions. Shielded Metal Arc Welding knowledge and safety and process variables are also covered. (Prerequisites: None)

WELD 1022 Blueprint Reading II, 3 credits

This course covers and builds the hands-on skills that are essential to fabricate weldments from blueprints with multiple welding processes. The hands on course approach, teaches students how to visualize blueprints by actually building welding projects from them. Students will start by fabricating projects from very simple blueprints, while each blueprint the student receives will get more challenging. All blueprints will be introduced by the instructor. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016 and WELD 1018 OR WELD 1001, WELD 1002, WELD 1003, WELD 1011, WELD 1021 and WELD 1031)

WELD 1024 Metals Theory I, 2 credits

This course covers metals safety, history of metals, every day metals we use, welding methods, basics of metallurgy, mechanical properties, physical properties and welding low, medium and high carbon steels. (Prerequisites: WELD1012)

WELD 1026 Process and Power Source II, 3 credits

This course takes over where Processes and Power Sources I left off. Processes such as FCAW Self Shielded and FCAW Externally Shielded, Submerged Arc Welding, GTAW-P, GMAW-P, GMAW Pulse on Pulse, and other processes will be covered. Solid state and inverter power source design function and application along with process consumables and shielding mediums will also be covered. (Prerequisites: WELD 1012)

WELD 1028 Gas Tungsten Arc Welding II, 3 credits

This course covers the Gas Tungsten Arc Welding process, welding aluminum fillet and groove welds in all positions. Gas Tungsten Arc Welding knowledge and safety are also covered. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016 and WELD 1018 OR WELD1001, WELD 1002, WELD 1003, WELD 1011, WELD 1021 and WELD 1031)

WELD 1034 Gas Metal Arc Welding II, 3 credits

This course covers hands on training utilizing the Gas Metal Arc Welding process on stainless steel and aluminum fillet welds. Gas Metal Arc Welding safety, knowledge and variables are also covered. (Prerequisites: WELD 1002, WELD 1004, WELD 1006,



WELD 1012, WELD 1014, WELD 1016, WELD 1018
OR WELD 1001, WELD 1002, WELD 1003, WELD
1011, WELD 1021 and WELD 1031)

WELD 1036 Shielded Metal Arc Welding II, 3 credits

This course covers hands on training utilizing 6010 and 7018 filler metals on carbon steels with the SMAW (stick) process. This course starts in the overhead position on fillet joints and then concentrates on 1G, 2G, 3G and 4G plates without backing strips. Backing strips will be used only as required. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016, WELD 1018 OR WELD 1001, WELD 1002, WELD 1003, WELD 1011, WELD 1021 and WELD 1031)

WELD 1209 Basic Pipe Welding, 5 credits

This course covers hands on training with the SMAW, GTAW and GMAW processes on carbon steel pipe. The focus of this course will be basic carbon steel pipe welding techniques in the 1G and 2G positions. Students will also learn how to level, quarter mark, cut, fit and weld basic pipe joints from hand drawn templates. This class is not intended to be an advanced pipe class and will adhere to the basics. AWS/ASME/API codes are followed throughout the course. (Prerequisites: MACH 1090, WELD 1001, WELD 1002, WELD 1003, WELD 1004, WELD 1006, WELD 1008, WELD 1011, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1021, WELD 1022, WELD 1024, WELD 1025, WELD 1026, WELD 1028, WELD 1031, WELD 1034, WELD 1036, WELD 1101)

WELD 2000 Basic Pipe Layout, 3 credits

The focus of this course will be basic pipe layout techniques. Students will also learn how to level, quarter mark, cut, fit and weld basic pipe joints from hand drawn templates. This class is not intended to be an advanced pipe class and will adhere to the basics. (Prerequisites: MACH 1090, WELD 1001, WELD 1002, WELD 1003, WELD 1004, WELD 1006, WELD 1008, WELD 1011, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1025, WELD 1026, WELD 1028, WELD 1034, WELD 1036)

WELD 2004 Metals Theory II, 3 credits

This course covers picks up where Metals Theory I left off. Some of the things this course will cover are: the applications, metallurgy and welding procedures/repair procedures for austenitic ferritic-martensitic and precipitation hardening stainless steels, gray - white - malleable - ductile and alloy cast irons and tool steels. Aluminum, magnesium, austenitic manganese, titanium, buildup and hard-facing are among the other course content that will also be covered. (Prerequisites: WELD 1002, WELD 1002, WELD 1003, WELD 1004, WELD 1006, WELD 1008, WELD 1011, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1021, WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034 and WELD 1036)

WELD 2006 Welding Code Interpretation, 2 credits

This course covers basic information and interpretation of AWS D1.1, ASME Section IX and API Standard 1104. Welding procedure qualification, welding performance qualification, extent of welder qualification, joint design, inspection and testing of welds, welding variables, and other information will also be covered.

WELD 2008 Blueprint Reading III, 4 credits

This course covers hands-on training with the SMAW, GTAW and GMAW processes on carbon steel pipe. The focus of this course will be basic carbon steel pipe welding techniques in the 1G and 2G positions. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1025, WELD 1026, WELD 1028, WELD 1034 and WELD 1036)

WELD 2012 GMAW 5G and 6G Pipe Welding, 2 credits

This course covers hands on training utilizing the GMAW process on carbon steel pipe. The course focus will be, open root, fill and cover passes in the 5G & 6G positions. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034, WELD 1036, WELD 2000, WELD 2004, WELD 2006 and WELD 2008)

WELD 2014 GTAW 5G and 6G Pipe Welding, 5 credits

This course covers hands on training utilizing the GTAW process on carbon steel pipe. The focus of this course will be, open root, fill and cover passes being made with GTAW in the 5G and 6G positions. GTAW and SMAW will also be used in combination to weld carbon steel pipe in the 5G & 6G positions. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034, WELD 1036, WELD 2000, WELD 2004, WELD 2006 and WELD 2008)

WELD 2016 SMAW 5G & 6G Pipe Welding, 5 credits

This course covers hands on training utilizing 6010 and 7018 filler metals on carbon steel pipe with the SMAW (stick) process. The focus of this course will be, 6010 open root passes with fill and cover passes being made with both 6010 and 7018 electrodes in the 5G and 6G positions. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034, WELD 1036, WELD 2000, WELD 2012, and WELD 2014)

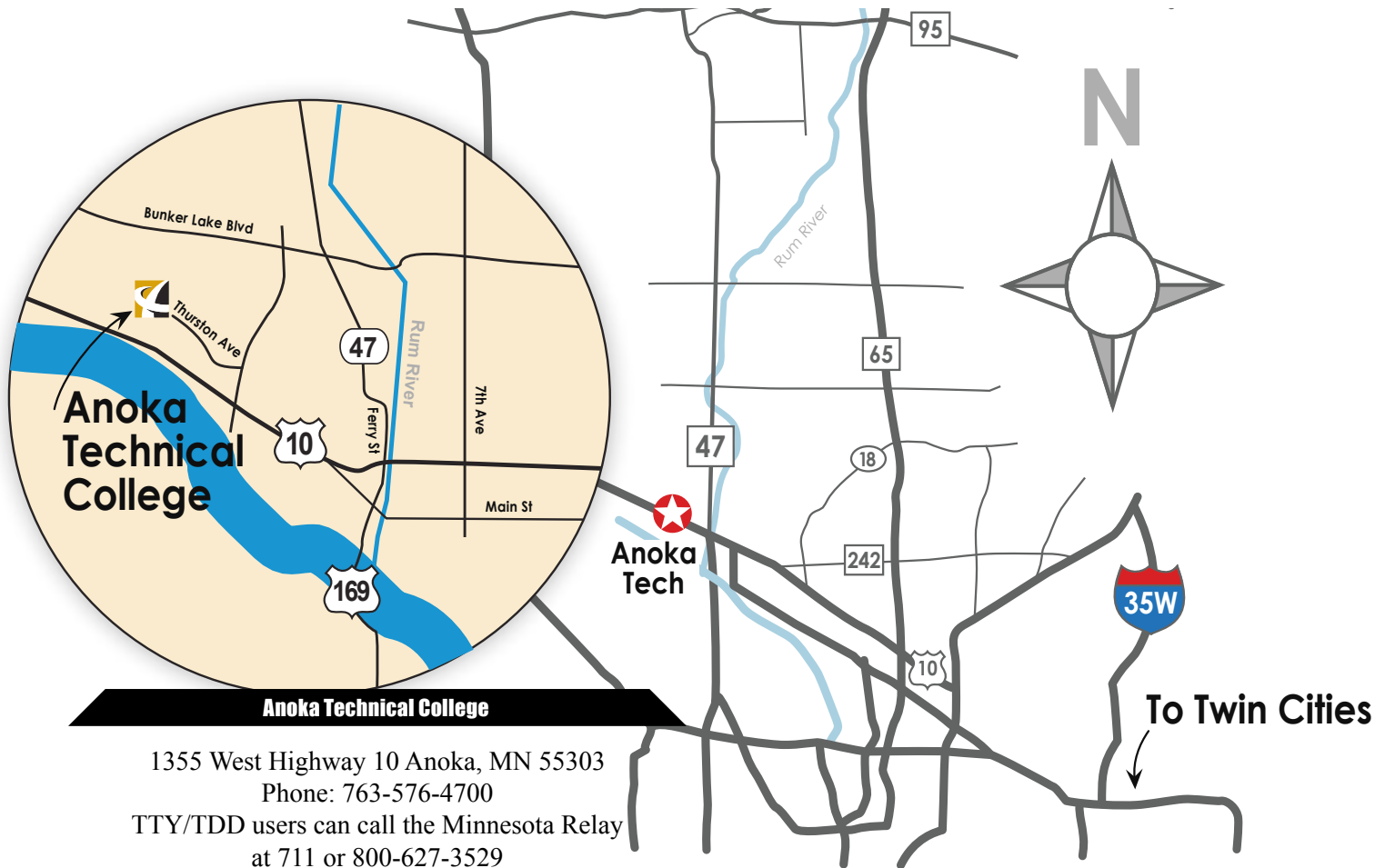
WELD 2018 Blueprint Reading IV, 5 credits

This course is a continuation of Blueprint Reading III. It improves visualization skills and refines the advanced hand and layout skills, essential for fabrication of weldments. Students will use advanced and intricate blueprints fabricated from a variety of base metals. Welding symbols and various welding processes will also be employed. Each project the student receives will be more challenging than the previous project. All blueprints will be introduced by the instructor. (Prerequisites: WELD 1002, WELD 1004, WELD 1006, WELD 1008, WELD 1012, WELD 1014, WELD 1016, WELD 1018, WELD 1022, WELD 1024, WELD 1026, WELD 1028, WELD 1034, WELD 1036, WELD 2000, WELD 2004, WELD 2006 and WELD 2008)



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Campus Locations & Directions



Anoka Technical College

1355 West Highway 10 Anoka, MN 55303
Phone: 763-576-4700
TTY/TDD users can call the Minnesota Relay
at 711 or 800-627-3529

Directions

From the West

Travel north on Hwy 169 to Hwy 10 west.

At this point, you're only one mile from campus. Turn north at Thurston Avenue (It is not marked well. It is a controlled intersection). Take an immediate left at the first stop sign. Follow the frontage road north (left). The frontage road will take you directly to the parking.

From the East

Travel north on Hwy 35E.

Go west on Highway 694. Take the Highway 10 exit to Anoka (Remain in the right lane as the road becomes a "Y"). Remain in the right lane for another five minutes, as Highway 10 veers to the right again and ultimately takes a big swing to the west. Turn north at Thurston Avenue (It is not marked well. It is a controlled intersection). Take an immediate left at the first stop sign. Fol-

low the frontage road north (left). The frontage road will take you directly to the college parking lot.

From Twin Cities:

Travel west on Interstate 94.

Take Hwy 252 North. Choose East Hwy 610. Minnesota Highway 610 intersects with Highway 10. Take Highway 10 West to Anoka. Turn north at Thurston Avenue (It is a controlled intersection). Take an immediate left at the first



Maps also available online at:
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