Listed below are the classes that you should register for in fall semester. Unless denoted “optional” all classes listed for fall semester are required in order to advance to spring semester in the program.

If you see a class listed, and believe that you’ve taken the class at a different institution, please review your DARS report in eServices to ensure that the class transferred to SCTCC to fulfill the program requirement. If it did not transfer, please register for the class as instructed. Instructions for how to access and interpret a DARS report can be found at the link provided in your welcome letter.

Please refer to the registration access code provided in your welcome letter when registering for classes. Contact the Academic Advising Center at advising@sctcc.edu with your questions about the class schedule or for assistance with registration.

<table>
<thead>
<tr>
<th>Course ID</th>
<th>Subject</th>
<th>Course Number</th>
<th>Section</th>
<th>Credits</th>
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<tbody>
<tr>
<td>000071</td>
<td>AutoCAD Foundations</td>
<td>CADD1502</td>
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<td>000072</td>
<td>Inventor Foundations</td>
<td>CADD1512</td>
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<tr>
<td>000073</td>
<td>Drawing Principles I</td>
<td>CADD1507</td>
<td></td>
<td>3</td>
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<tr>
<td>000074</td>
<td>Drawing Principles II</td>
<td>CADD1516</td>
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<tr>
<td>Choose from 5 options</td>
<td>Stretch Analytical Writing I</td>
<td>ENGL 1308</td>
<td>Choose from 5 options</td>
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Total Credits 15

**WEEKLY SCHEDULE**

<table>
<thead>
<tr>
<th>Hour</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>8 a.m.</td>
<td>AutoCad Foundations (Week 1-4)</td>
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<tr>
<td>9 a.m.</td>
<td>Inventor Foundations (Week 5-8)</td>
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<td>10 a.m.</td>
<td>Drawing Principles I (Week 9-12)</td>
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<tr>
<td>11 a.m.</td>
<td>Drawing Principles II (Week 13-16)</td>
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<td>12 p.m.</td>
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</table>
Students will get immersed in the product design process, including manufacturing process selection, material selection, design and stress calculation, applying geometric dimensioning and tolerancing, the finite element analysis, cost, and safety.

A Mechanical Design degree prepares graduates for a career of creating designs and graphics for products and machines.

**Diploma: 59 credits**

### TECHNICAL STUDIES SEMESTER I

- **CADD1502 - 3 cr**
  - AutoCAD Foundations
- **CADD1507 - 3 cr**
  - Drawing Principles I
- **CADD1512 - 3 cr**
  - Inventor Foundations
- **CADD1516 - 3 cr**
  - Drawing Principles II

### TECHNICAL STUDIES SEMESTER II

- **CADD1520 - 3 cr**
  - SolidWorks Foundations
- **CADD2505 - 3 cr**
  - Advanced Drawing Principles I
- **CADD2509 - 3 cr**
  - Advanced Drawing Principles II
- **CADD2532 - 2 cr**
  - Geo-Dim for Designers
- **CADD2550 - 1 cr**
  - Mechanical Design Technical Comm.

### TECHNICAL STUDIES SEMESTER III

- **CADD1523 - 3 cr**
  - Design Calculations I
- **CADD2518 - 3 cr**
  - Design Calculations II
- **CADD1545 - 3 cr**
  - Technical Computations
- **TECH1552 - 2 cr**
  - Basic Metal Joining and Fabrication

### TECHNICAL STUDIES SEMESTER IV

- **CADD1530 - 1 cr**
  - Basic Electric Circuits
- **CADD2510 - 3 cr**
  - Design Concepts
- **CADD2514 - 3 cr**
  - Computer-Aided Design
- **CADD2522 - 3 cr**
  - Machine Design
- **CADD2541 - 2 cr**
  - Mastercam Fundamentals
- **CADD2542 - 2 cr**
  - Reverse Engineering
- **TECH1556 - 2 cr**
  - Basic Manual - Automated Machining

### GENERAL EDUCATION

- **ENGL1308 - 3 cr**
  - Stretch Analytical Writing I
- **DVRS1310 - 3 cr**
  - Human Relations for a Diverse Workplace

---

**Placement Rate: 100%**

**Central MN Average Hourly Wage: $25**

---

**CONTACT US**

SCTCC Admissions
enroll@sctcc.edu
320-308-5089

sctcc.edu/mechanical-design

Curriculum is subject to change. 2019-2020 Academic Year
SCTCC is a member of Minnesota State and accredited by the Higher Learning Commission. ADA accessible facility. Affirmative action/equal opportunity educator/employer.
sctcc.edu
320.308.5000  |  800.222.1009
1540 Northway Drive, St. Cloud, MN 56303
SCTCC is a member of Minnesota State and accredited by the Higher Learning Commission. ADA accessible facility. Affirmative action/equal opportunity educator/employer.

A Mechanical Design degree prepares graduates for a career of creating designs and graphics for products and machines.

AAS: 68 credits

Students will get immersed in the product design process, including manufacturing process selection, material selection, design and stress calculation, applying geometric dimensioning and tolerancing, the finite element analysis, cost, and safety.

100% Placement Rate

$25 Central MN Average Hourly Wage

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CAD2

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<td>Drawing Principles II</td>
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TECHNICAL STUDIES SEMESTER II

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<td>3 cr</td>
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<tr>
<td>CADD2518</td>
<td>Design Calculations II</td>
<td>3 cr</td>
</tr>
<tr>
<td>TECH1545</td>
<td>Technical Computations</td>
<td>3 cr</td>
</tr>
<tr>
<td>TECH1552</td>
<td>Basic Metal Joining and Fabrication</td>
<td>2 cr</td>
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TECHNICAL STUDIES SEMESTER IV

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<tr>
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<tr>
<td>CADD1530</td>
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<td>3 cr</td>
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<td>TECH1556</td>
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GENERAL EDUCATION

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<tr>
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<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MNTC Goal Area 1</td>
<td>3 cr - Communications</td>
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</tr>
<tr>
<td>MNTC Goal Area 7</td>
<td>3 cr - Human Diversity</td>
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<tr>
<td>MNTC - 9 cr</td>
<td>Electives from at least one other goal area</td>
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</tr>
</tbody>
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1540 Northway Drive, St. Cloud, MN 56303
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New students: Mechanical Design (CADD), Architectural Construction Technology, and Land Surveying/Civil Engineering

Welcome! We are pleased you have chosen to attend St. Cloud Technical and Community College to further your education. One of the objectives of the program you have selected is keeping up with technology in industry. In order to accomplish this goal, your program has determined its students should have laptop computers at their disposal on a twenty-four hour basis.

Therefore, all students in your chosen major will be required to purchase a laptop computer. The laptop that we are recommending for student purchase is certified to run Autodesk programs which have very demanding hardware requirements. This particular model was chosen because of its features and, more importantly, because of the included 3-year damage protection plan and technical support.

Special pricing is offered on the laptop for SCTCC students. To take advantage of this reduced pricing, you must order your laptop through the SCTCC laptop web site from Now Micro. You will have the opportunity to speak with an IT representative during Student Virtual Registration Day on June 8-9, 2020. Laptop orders can be placed immediately after you create your Now Micro account. Directions are listed below. To place an order:

Instructions for Purchasing SCTCC Standard Laptop Bundles (If you need assistance with ordering please contact: Now Micro: 800-641-3210 or sales@nowmicro.com)

1. Go to the vendor website where you will find laptop pricing and specifications. Vendor site: https://www.nowmicro.com
2. Click on the shopping cart button at the top right-hand side of the page. Select Register:
3. Register as individual and follow the prompts to set-up online profile.
4. Once you submitted registration please check your email for password.
5. Once logged into the store site, enter keyword “SCTCC CFG1” under the product search to access school-approved laptop bundle options.
6. Select the laptop for Land Surveying/Computer Aided/Architectural/ Civil Engineering/ Mechanical Design.
7. Add products to cart (including selectable accessory options if needed) and proceed through checkout process.
   *NOTE: Customers must select Credit Card as Payment Method, and either FedEx Ground or Will Call as Delivery Method. Orders that do not comply with these instructions will not be processed. Expect it to take at least 2-3 weeks to receive your laptop after ordering.

Your laptop is required to have the following components:
- Autodesk Software (Downloaded for free from the AutoDesk site during class.)
- Microsoft Office 365 Pro Plus Students at SCTCC are eligible for a free copy of Microsoft Office 365 Pro Plus. This software can be installed by clicking a link inside of your student email. Instructions are linked on this page: http://www.sctcc.edu/student-help-desk

If you choose not to purchase the recommended laptop computer, please follow the specifications for the recommended laptop as closely as possible to ensure that your device with run the software necessary for your program. If you would like the specifications of the laptop emailed to you send a request to vbergquist@sctcc.edu. Please be sure to say which program you are entering.

Financial aid can be used to cover the purchase of your laptop. Because financial aid and loan checks arrive approximately three to four weeks after classes start, you will need some form of financing until the financial aid comes through. Credit card is the preferred method of payment.

Students must make arrangements to have their computers well before the start of school fall semester as they are needed on the first day of classes. If you need assistance with your laptop, please bring it to the SCTCC Technology Department located in Room 1-215.

Vi Bergquist, CIO
320-308-5177
vbergquist@sctcc.edu