

# High Technology Studies

## Certificate of Completion

### 2009-10 Academic Year

Major Code: 150613

### About the Program

The High Technology Studies certificate program designed to expand technical knowledge across a range of technical career areas. Students may specialize in a number of technology areas such as welding, manufacturing, machining, computer aided drafting, electronics, and computer science by selecting the appropriate technical electives.

### Entry Requirements

Students are required to take a placement test to determine skill level and readiness in math, reading, and writing. As part of their training program, students must begin with the courses within their skill levels as determined by placement test scores. Students are required to complete any prerequisites listed. In addition, students may also be required to enroll in classes that would increase their employability and success.

### Advanced Standing

Coursework from accredited colleges and universities will be accepted in accordance with college policies and the Electronics Technology Department head's recommendation. In order to ensure that coursework is current, program courses over three years old must be reviewed and approved by the appropriate department head before being accepted toward core requirements. Official transcripts must be filed with the Enrollment Services Office and the Electronics Technology Department.

### Graduation Requirements

Students must complete all courses in this program with a grade of "C" or better to receive their certificates. Certain required courses are graded on a pass/no pass basis only. A grade of "P" for these courses indicates a student earned a "C" or better grade.

### Prerequisites

Course No.	Course Title	Credits
—	Approved 3-4 credit computer science class, CS120 or above (or documented computer proficiency) <sup>1</sup>	0-4
MTH20	Pre-algebra (or designated placement test score as shown on current indicator chart)	4
RD30	College Reading II (or designated placement test score as shown on current indicator chart)	4
WR30	Fundamentals of Composition II (or designated placement test score as shown on current indicator chart)	4

### Required Core Courses

#### Mathematics 4

(Additional math classes may be required as prerequisites to some technical electives.)

Course No.	Course Title	Credits
MTH63	Applied Technical Math or	4
MTH60	Fundamentals of Algebra I or higher level math	

#### Communication 3-4

Course No.	Course Title	Credits
WR115	Introduction to Expository Writing or	3-4
WR121	English Composition I	

#### Health/First Aid 1

Course No.	Course Title	Credits
9.167	Emergency First Aid	1

#### Human Relations 3

Course No.	Course Title	Credits
BT101	Human Relations in Organizations or	3
PSY101	Psychology of Human Relations	

#### Technology Area 39

(Approved technical electives totaling 39 credits.)

Course No.	Course Title	Credits
—	Any CS125 application class	variable
CS140	Introduction to Operating Systems	4
CS227	PC Hardware Fundamentals and Repair	5
CS227n	Networking Hardware Fundamentals	4
CT111	Computer Aided Drafting I: Architectural (AutoCAD)	3
CT211	Computer Aided Drafting II: Architectural (AutoCAD)	3
EET101	Introduction to Electronics	3
EET102	Industrial Electronics for Manufacturing	5
EET103	Electronics Drafting	3
EET106	Electronic Assembly	3
EET112	Introduction to Mechatronics	5
EET115	PC Electronics I	5
EET118	Introduction to Renewable Energy Systems	3
EET125	Electronics Fundamentals I (DC) <sup>2</sup>	6
EET126	Electronics Fundamentals II (AC) <sup>3</sup>	6
EET130	Digital Fundamentals I	5
EET131	Digital Fundamentals II	5
EET160	Applied Analog Devices	5
EET240	Computer Software/Hardware Architecture I	5
IT111	Selected Technical Topic	variable
IT115	Discourses in Technology	variable
IT121,122,123	Technical Career Support I, II, III	1-1-1
IT125	Technical Career Exploration	1
IT180	Cooperative Work Experience/Engineering	variable
IT180s	Cooperative Work Experience/Seminar	1
IT211	Selected Technical Topic	variable
IT215	Discourses in Technology	variable
IT280	Cooperative Work Experience/Engineering	variable
IT280S	Cooperative Work Experience/Seminar	1
MET101	Mechanical Drafting	3
MET104	Applied Shop Practices	3
MET105	Mechanical Blueprint Reading	1
MET121	CAD I: Mechanical (SolidWorks)	3
MET122	CAD II: Mechanical (SolidWorks)	3
MET123	CAD III: Mechanical (SolidWorks)	3
MET160	Materials and Metallurgy	3
MFG101	Introduction to Manufacturing	3
MFG121,122,123	Manufacturing Processes I, II, III	4-4-4
MFG220	Research and Development Prototyping	4
MFG230	Statistics and Quality Control	3
MFG241	CNC Programming – Mill	4
MFG242	CAM I: Mastercam	4
MFG243	CAM II: Mastercam	4

Course No.	Course Title	Credits
MFG244	CNC Programming – Lathe	3
MFG255	Computer Integrated Manufacturing	4
MTH65	Fundamentals of Algebra II	4
WLD101,102	Welding Fundamentals I, II	3-3
WLD111,112,113	Technology of Industrial Welding I, II, III	6-6-6
WLD121,122	Fabrication and Repair Practices I, II	5-5
WLD211,212,213	Technology of Industrial Welding IV, V, VI	6-6-6
WLD221	Welding Codes, Procedures, and Costs	3
WLD222	Quality Assurance, Quality Control, and Inspection/Testing of Welds	4
WLD250	Selected Topic in Welding	variable
<b>TOTAL PROGRAM CREDITS</b>		<b>50-51</b>

<sup>1</sup> Required for graduation. Successful completion of CS101 or otherwise meeting the proficiency requirement within the last 10 years fulfills this requirement.

<sup>2</sup> Can also be taken in a modularized format as EET125A and EET125B.

<sup>3</sup> Can also be taken in a modularized format as EET126A and EET126B.

For more information contact the Electronics Technology Department:

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This advising guide is for advising purposes only. Please see current college catalog for additional information on specific college policies and graduation requirements.  
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