

MECHANICAL DESIGN



CLINTON & SCOTT COMMUNITY COLLEGE CAMPUSES

Computer-aided Design / PRO-E Instructors

Brad McConnell
(563) 441-4369
FAX (563) 441-4374
bemcconnell@eicc.edu

Bruce Bainbridge
(563) 441-4370
FAX (563) 441-4374
bbainbridge@eicc.edu

Blong Technology Center (BTC)

8500 Hillandale Road
Davenport, IA 52804
(exit 292 off I-80)
(563) 441-4360
toll-free 1-888-336-3907

www.eicc.edu/computercareers

www.eicc.edu
1888-336-3907
Toll-free

Our Web Links:

www.eicc.edu/apply
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www.eicc.edu/daretocompare
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Program Description

Changes are occurring right now in manufacturing that make it necessary for potential employees to have higher skill levels than ever before. Critical thinking, math and science, electronics and computer skills are at the top of the list.

An Associate in Applied Science degree in Mechanical Design Technology allows you to get those skills and specialize in Computer Aided Design (CAD)/Pro-E. The Mechanical Design Technology program includes proficiencies required by industry, delivered in a practical, hands-on method that applies directly to the world of work.

Pro-Engineer (Pro-E) is a standard in industry, that's why we incorporated it into our curriculum several years ago. In addition, we offer training in SolidWorks and AutoCAD. Over 500 hours of lab time prepare you well for employment. Our graduates' extensive CAD training gives them the edge in today's job market.

A two-year degree is the new criteria for the manufacturing employee. An Associate in Applied Science degree in CAD/Pro-E from Eastern Iowa Community College is an excellent foundation for success.

Award Options

The CAD/Pro Engineer program is comprised of three separate degree paths - Certificate, Diploma, and Associate in Applied Science Degree. All three of these paths consist of courses that will be available through the Eastern Iowa Community College MEDIA SITE system and be offered at the Blong Technology Center as well as the Clinton and Muscatine campuses.

What is MEDIA SITE?

Beginning with Fall 2009, the Mechanical Design Technology will be offered district-wide through the Eastern Iowa Community College's MEDIA SITE system. This technology allows students access to lectures over the Internet at the Blong Technology Center, Clinton Community College, Muscatine Community College or a site of the student's choosing as long as there is Internet access available. Instructors will be available on each campus on a set schedule. Lab/classroom space is also available on each campus. It is the responsibility of the student to allow adequate time to complete assigned work for each course they are enrolled in. A mandatory orientation for the program detailing the use of MEDIA SITE will be held at each campus at the beginning of each semester. (Students needing to schedule specific orientation time will be accommodated.)

Job Classification

Mechanical Design Technicians assist engineers in design and development work by preparing detailed drawings showing exact dimensions and specifications. Most drawings are prepared on the computer (CAD system) utilizing advanced knowledge and skills of drafting, design, mechanical operations, geometric dimensioning and tolerances, strength of materials, and solid modeling. In some instances mechanical design technicians will work with solid modeling software such as Pro-Engineer) basic modeling, basic detailing, assemblies and sheet metal) for comprehensive design and processing of different mechanical/geometrical sub-assemblies, and/or systems.

Mechanical Design Technology

Certificate, Diploma, and Associate in Applied Science Degree are available:

Pro Engineer/SolidWorks Certificate	20 Credits
Certificate CAD\Pro Engineer	31 Credits
Diploma CAD\Pro Engineer	40 Credits
Associate in Applied Science Degree CAD\Pro Engineer	68 Credits

Each session is 8 weeks in length.

Tuition and fees subject to change by the EICCD Board of Trustees.

Since the colleges of EICCD are continually reviewing programs, information in the course catalog may change. Please visit www.eicc.edu/catalog for any program updates which have occurred since the most recent edition of the catalog.



FUEL your mind.

Clinton Community College

1000 Lincoln Boulevard,
Clinton, IA 52732
(563) 244-7001
1-800-638-0559
www.facebook.com/
clintoncommunitycollegeia

Admissions Officer

Heather Mohler
hmohler@eicc.edu
(563) 244-7007
FAX (563) 244-7107

Muscatine Community College

152 Colorado Street,
Muscatine, IA 52761
(563) 288-6001
1-800-351-4669
www.facebook.com/
muscatinecommunitycollegeia

Admissions Officer

Katie Watson
klwatson@eicc.edu
(563) 288-6012
FAX (563)288-6014

Scott Community College

500 Belmont Road,
Bettendorf, IA 52722
(563) 441-4001
1-800-895-0811
www.facebook.com/
scottcommunitycollegeia

Admissions Officer

LaDrina Wilson
lnwilson@eicc.edu
(563) 441-4007
FAX (563) 441-4101

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Program requirements subject to change. Please check with your advisor.

Job/Earnings Outlook

The Occupational Outlook Handbook, published by the United States Bureau of Labor Statistics, provides detailed information on hundreds of jobs - including:

- earnings
- expected job prospects
- what workers do on the job
- working conditions

In addition, the Handbook gives you job search tips, links to information about the job market in each state, and more.

For details, please visit this link <http://www.bls.gov/oco/>

MECHANICAL DESIGN

A.A.S. DEGREE

SESSION I

DRF:114	Basic Drafting I/A	2.5
MAT:142	Technical Mathematics I	1.5
CAD: 211	Fundamentals of AutoCAD	4
		8

SESSION II

CSC:112	Computer Fundamentals For Technicians 1/A OR	2
EGT/EGR:400	Introduction to Engineering Design	
DRF:115	Basic Drafting I/B	2.5
MAT:143	Technical Mathematics II	1.5
		6

SESSION III

DRF:130	Industrial Drafting Applications I	3.5
MAT:144	Technical Mathematics III	1.5
PHY:130	Applied Physics I	2
		7

SESSION IV

DRF:135	Industrial Drafting Applications II	3.5
MAT:145	Technical Mathematics IV	1.5
PHY:135	Applied Physics II	2
		7

SESSION V

CAD:225	Descriptive Geometry	2
CAD:231	Pro Engineer - Basic Modeling OR	
CAD:261	Solid Works Basic Modeling	4
ENG:107	Composition I: Technical Writing	3
		9

SESSION VI

CAD:241	Pro Engineer Advanced Modeling OR	4
CAD:262	Solid Works Advanced Modeling	
IND:222	Geometric Tolerancing/Dimensioning	3
EGT:161	Strength of Material I/A	1.5
		8.5

SESSION VII

CAD:251	Pro Engineer-Assemblies OR	4
CAD:263	Solid works Assembly	
EGT:162	Strength of Material I/B	1.5
	Social Science or Humanities General Education Requirement	3
		8.5

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SESSION VIII

CAD:233	Pro Engineer Basic Detailing OR	4
CAD:264	Solid Works Basic Detailing	
*DRF:148	Project Design I	1.5
EGT:163	Strength of Material II/A	1.5
		7

SESSION IX

CAD:256	Pro Engineer Sheet Metal OR	4
CAD:265	Solid Works Sheet Metal	
DRF:149	Project Design II*	1.5
EGT:164	Strength of Material II/B	1.5
		7

A.A.S. TOTAL**68**

*EGT/EGR:470 Engineering Design and Development may be substituted for DRF:148 and DRF:149.

CAD/PRO ENGINEER Diploma**SESSION I**

CSC:112	Computer Fundamentals for Technicians I/A OR	2
EGT/EGR:400	Introduction to Engineering Design	
DRF:114	Basic Drafting I/A	2.5
ENG:107	Composition I: Technical Writing	3
MAT:142	Technical Mathematics I	1.5
		9

SESSION II

CAD:225	Descriptive Geometry	2
DRF:115	Basic Drafting I/B	2.5
MAT:143	Technical Mathematics II	1.5
		6

SESSION III

DRF:130	Industrial Drafting Applications I	3.5
IND:222	Geometric Tolerancing/Dimensioning	3
MAT:144	Technical Mathematics III	1.5
		8

SESSION IV

CAD:260	Auto Desk Inventor	4
DRF:135	Industrial Drafting Applications II	3.5
MAT:145	Technical Mathematics IV	1.5
		9

SESSION V

CAD:231	Pro Engineer Basic Modeling	4
	Social Science or Humanities General Education Requirement	3
		7

DIPLOMA TOTAL**39**

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CAD/PRO ENGINEER Certificate

SESSION I

CSC:112	Computer Fundamentals For Technicians I/A	2
DRF:114	Basic Drafting I/A	2.5
ENG:107	Composition I: Technical Writing	3
MAT:142	Technical Mathematics I	1.5
		9

SESSION II

CAD:225	Descriptive Geometry	2
DRF:115	Basic Drafting I/B	2.5
MAT:143	Technical Mathematics II	1.5
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SESSION III

DRF:130	Industrial Drafting Applications I	3.5
IND:222	Geometric Tolerancing/Dimensioning	3
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SESSION IV

CAD:260	Auto Desk Inventor	4
DRF:135	Industrial Drafting Applications II	3.5
MAT:145	Technical Mathematics IV	1.5
		9
CERTIFICATE TOTAL		32

PRO ENGINEER/Solid Modeling Certificate

CORE COURSES CREDITS

CAD:231	Pro Engineer - Basic Modeling	4
CAD:233	Pro Engineer - Basic Detailing	4
CAD:251	Pro Engineer - Assembly	4

ELECTIVE COURSES

Select two of the following:

CAD:212	Solid Works	4
CAD:241	Pro Engineer - Advanced Modeling	4
CAD:256	Pro Engineer - Sheet Metal	4
CAD:260	AutoDesk Inventor	4

CERTIFICATE TOTAL

20