

Schoolcraft College

Course Cover Sheet



M-CAM Training Area:

CNC/Machining Multi-Skilled Mechatronics Production Operation Welding/Fabrications

Program(s): 1) Advanced Manufacturing AAS
2) Mechatronics AAS

Course: MFG 290 - Manufacturing Internship

Course Description: This is an applied course within Occupational Programs specializing in the field of manufacturing (MFG) and is a cooperative assignment for students who have completed the prerequisites for this course. Employment will be approximately 12 to 40 hours per week off-campus at the employer's location within a manufacturing or related department. The final grade will be based on a joint evaluation by the college and the employer. Students registered in this internship course are considered Schoolcraft College students with all rights, responsibilities and privileges of a student. Internships may be paid or unpaid based upon placement. Department permission is required before registering for this course. The selection of eligible students to register for the course is a competitive process that includes testing, submission of a resume with a cover letter and interviews.

Date Created: June 3, 2015

Faculty Developer(s)/Instructional Designers(s): Gene M. Keyes, Amy Jones, Anne Huber

Employer/Industry Partner: Lincoln Park Boring and Ecco Tool

College Contact: Amy Jones
Phone: 734-462-4595
Email: ajones@schoolcraft.edu

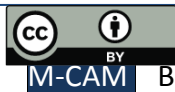
Additional Information/Comments:

As part of our TAACCCT grant and in guidance with our advisory board members, Lincoln Park Boring and Ecco Tool, the Manufacturing Internship course was created. Schoolcraft agreed with the TAACCCT tenet that work-based learning was important to the student's overall success as an employee.

This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

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MFG 290 Manufacturing Internship Syllabus

Instructor and Class Information

Instructor Name	Gene M Keyes
Email	GKeyes@schoolcraft.edu
Phone	248-505-2877
Office Location	AS 170
Instructor Office Hours	Monday 2:00-5:00pm Thursday 3:00-5:00pm
Section Number	115074
Meeting Times	TBD
Location	AS 170

Course Information

Course Description

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Types of Instruction

Instruction Type	Credits/Hours
Credit Hours [transcripted]	3
Lecture Hours	1
Lab Hours	12/40

Pre/Corequisites

Prerequisite Minimum of three MFG courses with a minimum average grade of 3.0 and an overall minimum GPA of 2.5 or consent of department.

Textbooks

No Text book required.

Learner Supplies

Weekly Journal.

Core Abilities

1. Communicate effectively

Course Competencies

1. Apply technical skills to real world projects.
2. Apply project management skills by creating and using schedules and work plans.
3. Adapt within the social, organizational and technical systems of the workplace.
4. Evaluate information so that output can conform to the employer's product or service needs.
5. Solve employer problems through data analysis and interpretation.
6. Maintain manufacturing-related data files and information.
7. Relate with staff in a respectful and collaborative manner.
8. Perform duties in a professional manner (i.e., dress, professional ethics, work ethic and formal communications).
9. Adhere to safety guidelines and regulations.
10. Perform other manufacturing or related business duties as assigned by supervisor.

Academic Integrity

In accordance with the Schoolcraft College Student Code of Conduct, students are prohibited from engaging or participating in acts of dishonesty, including but not limited to cheating, plagiarism or other forms of academic dishonesty. The complete Student Code of Conduct is available in the catalog and at: <http://www.schoolcraft.edu/academics/policies/conduct>.

Any academic dishonesty associated with this course may result in the grade of zero for the assignment or exam and may lead to further disciplinary action.

Cheating

Includes but is not limited to: assistance with tests, quizzes, exams; unauthorized sources when writing papers, preparing reports, solving problems or completing other assignments; taking/receiving academic material (including tests) belonging to a faculty or staff member without permission.

Plagiarism

Includes but is not limited to: the use of published or unpublished work of someone else without full citation. Plagiarism also includes selling/purchasing papers or other academic material. In other words, it is stealing (whether knowingly or unknowingly) another's work and passing it off as your own.

Forms of plagiarism include direct quotations, paraphrasing (restatement of text without changing the meaning and without giving attribution) and aggregation of materials (compilation and rearrangement of materials gathered from several sources).

Additional Services

The Learning Assistance Center (LAC) may have tutors for this course.

Livonia LAC: (734) 462-4436; Bradner Library, Room 119
Radcliff LAC: (734) 462-4400, ext. 6021; Radcliff Center, RC 120

There are general (open) computer labs for student use both at Livonia and Radcliff. In Livonia, MC 010 (lower level of the McDowell Center) is open daily and on weekends with hours posted in the lab. At Radcliff, RC 140 will have weekly hours posted outside the room. Call (734) 462-4400, ext. 5529 for hours at both campuses. Lab technicians are available in MC 010 to help you with hardware or system problems in the labs. They are not tutors for various software packages. Food and drink are not allowed in any computer labs. Additional policies may be posted in the computer labs.

Class Cancellation

Classes canceled will be listed on the Schoolcraft web page. Students can visit <http://www.schoolcraft.edu/cancellationsandclosings> for more information.

For College closings due to weather or other emergencies, listen to major area radio or TV stations for updates.

SAlerts RAVE Emergency Alert System

All Schoolcraft College students enrolled in credit classes will automatically be enrolled in the SAlerts RAVE Emergency Messaging System. The SAlerts system sends messages about closings and emergencies or dangerous situations involving an immediate threat to the health or safety of students.

Visit <http://www.schoolcraft.edu/scalerts> for more information.

Faculty and Off-Site Supervisor Responsibilities

1. Courses will be taught in accordance with the description published in the catalog and common syllabus.
2. A Course Syllabus will be distributed at the first session of each class.
3. Faculty will make themselves available for student consultations and will respond to emails, phone calls and student contacts in a timely manner.
4. Attendance will be taken and reported to the Records Office for State and Federal Report purposes.
5. Timely feedback will be provided to students regarding their progress.
6. Exams and other major assessments not returned to students will be kept on file for a minimum of three months after the semester end.

Important Dates

Final Evaluation: May 2, 2016 _____

No Class Meetings: February 29 - March 6, 2016 (Spring Break) _____

Important dates for registration, semester start and end, withdrawal /refund from classes and holidays for each semester may be found by selecting the "Important Dates" link at <http://www.schoolcraft.edu/importantdates>.

Methods of Instruction

Any combination or all of the following may be used in this course.

Delivery of Course Content:

Lecture, Electronic Presentation, Demonstrations, Video/Audio Presentations, Case Studies, Field Trips, Website(s), Course Books, Articles, Other Resources

Course competencies and outcomes remain the same regardless of course length or modality.

Assessment:

Practical Application, Quizzes and Tests, Papers and Presentations, Discussion, Other Projects

Communication:

Lecture, Collaborative Discussion, Group Projects, Electronic Communication, Course Website

Missed or Late Assignments

Students are expected to plan their schedule so that they can be present for scheduled class sessions and manage their time so that assignments and assessments can be completed on or before the date they are due. Make-up of a missed exam or acceptance of a late assignment is at the discretion of the instructor.

Non-Discrimination Policy

It is the policy of Schoolcraft College that no person shall, on the basis of race, religion, color, gender, age, marital status, disability, sexual orientation, and/or national origin be excluded from participating in, be denied benefits of, or be subjected to discrimination during any program or activity or in employment.

Student Responsibilities

As a Schoolcraft College student (whether online, on campus, or at an off campus educational site), you are expected to:

1. Check your Schoolcraft email, Blackboard (if applicable) and the College website for:

- Announcements
- Class Cancellations
- Assignments
- Other pertinent information

Refer to the Schoolcraft Email User Guide, found on the Schoolcraft website for assistance in setting up your Schoolcraft email.

2. Seek technical assistance, should the need arise, regarding elements needed to complete your coursework including but not limited to SEmail, Blackboard, publisher resources, etc.

3. Use appropriate communications and proper Netiquette between you and the instructor, supervisor, and/or classmates.

4. Complete all course requirements, assignments, reflections, etc. This includes but is not limited to: being responsible for reading the textbook/course materials and not relying on the instructor presenting every detail.

5. Follow the College's policies regarding student conduct, academic integrity, and academic dishonesty.

6. Budget your time to keep up with the course work. At least two hours of study time outside of class for each hour the class meets is recommended.

7. Check the Schoolcraft College Registration Information web page for important institutional dates (e.g.

registration, withdrawal, etc.).

8. Demonstrate respect and courtesy to others whether in the classroom, online, or off-site.
9. Identify yourself and the class you are referring to when contacting your instructor or supervisor via email, by phone, or in person. In addition, show the attempted work when seeking help in completing an assignment.
10. Inform your instructor or supervisor of any situations or health conditions that might create an emergency within the learning environment.
11. Discuss, in advance, any needs you may have for test taking or other accommodations. The instructor must have received notification from Disability Support Services.
12. Adhere to the instructor's classroom policies regarding the usage of any digital device (e.g. cell phone, tablet, etc.) during class.
13. Refrain from all unauthorized recording of any instructor, classmate, etc. without prior permission.

Success in Your Course and Program of Study

Schoolcraft College is dedicated to your success in achieving your goals.

The grade that you earn in this course may impact your ability to progress in future courses or in your program. Students who do not fulfill the minimum requirements set by this course and receive a grade lower than the minimum to progress, or those who do not officially withdraw from this course by the withdrawal deadline and receive a final grade of 0.0, may have their ability to obtain financial aid impacted. This may include future denial of financial aid or the requirement to return funds that have been disbursed.

Course Specific Information

Internship sites are applied for just like a job. There may be competition between students who are applying for the same site. The employer has the final word on all intern selections. This provides a real interview situation for the student.

As part of the course, you will need to check in with your instructor once a week during the internship to have your weekly journal reviewed. These meetings will occur face-to-face and/or via online communication.

As a hybrid course, there will be a minimum of three face-to-face, one hour meetings with your instructor. The face-to-face meetings will occur during:

First Week: Discuss the course requirements, specific job expectations and professional behavior during employment.

Fourth Week: Discuss student progress; identify opportunities and challenges of the experience.

Final Week: Conduct an exit interview and review student reflection paper.

Specific instructions for your job duties will be assigned by your on-site supervisor. You are to treat your schedule like a normal job and abide by the rules and expectations of your employer.

Grading Rationale

Grades will be derived from:

- 1) Timely submission of weekly journals to instructor. Weekly journals will include a log of the hours worked, a description of the activities performed that week, and goals for improvement. A company description should be

included in your first journal. The interviews discussed below will be part of your journal.

2) Three leadership position interviews (other than your supervisor). This is added to your weekly journals and must be done by mid-term.

3) Internship project (based on placement) - quality of analysis, planning and execution and evaluation of success.

4) Fourth week evaluation from the employer.

5) Student Final Report. Submit a final paper on what you learned during your internship. See final report sheet.

6) The final evaluation from the employer. Internship site supervisor (employer) may include an exit interview in the evaluation process.

7) Instructor review of your employer's evaluation.

Type all reports, letters and interviews, if the instructor has feedback on fixes to be done, said fixes must be turned in by the end of the week.

Determination of Final Grade

Instructor review of the following:

Weekly anecdotal journal - regular entries with evidence of thoughtful comments.	10%
Three interviews - logical selection of executives and thoughtful written description. See interview sheet.	10%
Internship project - quality of analysis, planning and execution and evaluation of success.	20%
Fourth week evaluation.	10%
Final report - program analysis - evidence of thoughtful analysis.	5%
Evaluation by on-site supervisor.	30%
Evaluation by faculty supervisor, including evaluation of weekly journals.	15%
Total	100%

EXAMPLE:

Assessment Method	Points Earned	Points Possible	Percent of Grade
Weekly Journal	75	100	10%
Three Interviews	80	100	10%
Internship Project	180	200	20%
Fourth Week Evaluation	80	100	10%
Final Report	50	50	5%
Evaluation by on-site Supervisor	235	300	30%
Evaluation by Faculty	95	150	15%
Total	795	1,000	100%

Your grade: $795/1,000 = 0.795$ which rounds to 80%, final grade is 2.7

Grading Scale

Descriptions	Grade Scores	Grade Points		Descriptions	Grade Scores	Grade Points
	100-93	4.0			77	2.4
	92	3.9			76	2.3
	91	3.8			75	2.2
	90	3.7			74	2.1
	89	3.6		Average	73-70	2.0
Excellent	88	3.5			69	1.9
	87	3.4			68	1.8
	86	3.3			67	1.7
	85	3.2			66	1.6
	84	3.1		Below Average	65	1.5
Very Good	83	3.0			64	1.4
	82	2.9			63	1.3
	81	2.8			62	1.2
	80	2.7			61	1.1
	79	2.6		Poor	60	1.0
Good	78	2.5		Unacceptable	59 & Below	0.0

Schedule

NOTE TO STUDENTS: The basic topics in this course must be covered but may be accomplished using a modified version of the schedule listed below

Session	Topics	Target Competencies	Assignments/ Assessments	Due Date
First week, fourth week, and final week			Meet face-to-face with instructor. Meet with career counselor if necessary.	
Weeks 1-15	As this internship is a professional work experience, the exact topics will vary depending upon placement.		Weekly Journals On-site Supervisor Evaluation Student Reflection	

Updated by Curriculum Committee

May 2015



Subject Matter Expert (SME) Course Review Summary

College: Schoolcraft College

M-CAM Training Area: CNC/Machining Multi-Skilled/Mechatronics Production Operation Welding/Fabrication

Degree Program Name: Advanced Manufacturing AAS

Title of Course: MFG 290 Manufacturing Internship (Elective)*

Subject Matter Expert (SME) Reviewer Information

Name: Floyd Peterson

Title: President

Phone: 248-349-0840

Email: admin@eccotool.com

Organization/Affiliation: Ecco Tool/Schoolcraft College Advisory Board Member

Attach Resume or provide credentials (showing years of experience and work experience that is relevant to course content):

<http://www.eccotool.com/index.php>

Synopsis of Findings:

Reviewers Signature

Floyd Peterson

Date:

2-2-17

**Michigan Coalition for Advanced Manufacturing
Subject Matter Expert Course Review**

1. Course Overview and Objectives	Exceptional	Satisfactory	Ineffective
The goals and purpose of the course is clearly stated.	X		
Prerequisites and/or any required competencies are clearly stated.	X		
Learning objectives are specific and well-defined.	X		
Learning objectives describe outcomes that are measurable.	X		
Outcomes align to occupational focus (industry skills and standards).	X		
Comments or recommendations:			
2. Material and Resources	Exceptional	Satisfactory	Ineffective
The instructional materials contribute to the achievement of the course learning objectives.			
The materials and resources meet/reflect current industry practices and standards.			
The instructional materials provide options for a variety of learning styles.			
Resources and materials are cited appropriately. If applicable, license information is provided.			
Comments or recommendations: <p align="center">? NA</p>			
3. Learning Activities	Exceptional	Satisfactory	Ineffective
Provide opportunities for interaction and active learning.	X		
Help understand fundamental concepts, and build skills useful outside of the learning object.	X		
Activities are linked to current industry practices and standards.	X		
Comments or recommendations:			

**Michigan Coalition for Advanced Manufacturing
Subject Matter Expert Course Review**

4. Assessment Tools/Criteria for Evaluation	Exceptional	Satisfactory	Ineffective
The course evaluation criteria/course grading policy is stated clearly on syllabus.	X		
Measure stated learning objectives and link to industry standards.	X		
Align with course activities and resources.	X		
Include specific criteria for evaluation of student work and participation.	X		
Comments and recommendations:			
5. Equipment/Technology	Exceptional	Satisfactory	Ineffective
Meets industry standards and needs.	X		
Supports the course learning objectives.	X		
Provides students with easy access to the technologies required in the course/module.	X		
Comments and recommendations:			

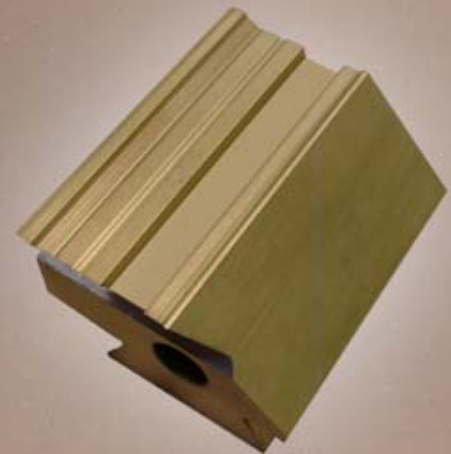
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Started in 1955 by Elmer Peterson and Charlie Bowman, ECCO Tool got our name from the first letters of their names: **Elmer Charlie CO.** Now run by Elmer's son, Floyd Peterson, this family business now has three of Floyd's children working with us. Still growing strong, ECCO Tool Company specializes in manufacturing Highspeed and Carbide Cutting tools.

What sets us apart from competitors is our fast turnaround time and very competitive prices. If your company ordered parts from us years ago, we are able to perfectly replicate it. In fact, ECCO manufactures replacement tools to be exactly the same, enabling you to take one tool out of your machine and place the next tool in – and be up and running without costly down time between tool changes.

ECCO Tool Company is committed to quality. In fact, ECCO was one of the first companies in 1986 that Ford Motor Company approached with its Q101 program. In 1989, ECCO was awarded a Q101 rating by Ford. The same year, the Hydra-Matic division of General Motors presented ECCO with its Quality of Excellence award. In 1994, ECCO became the only dovetail form shop to obtain the Ford Q1 Rating.

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