

## 2022/2023 Student Syllabus

### Automated Manufacturing Technology Mecosta/Osceola Career Center (MOCC)

15830 190<sup>th</sup> Ave

Big Rapids, MI 49307

231 796-5805 EXT. 1128

[www.moisd.org](http://www.moisd.org)

**Instructor:** Gary McIntyre

**Paraeducator:** Alan Cook

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**Classroom Phone Extension:** 1128

#### Program Description:

Automated Manufacturing Technology is a 2-year program. The class serves as an introductory course designed to expand the student's career options by providing hands-on experience in seven different areas of industry with focus on the Machines Trades. This course is an uninterrupted two-hour and fifteen-minute long block class that consists of six consecutive 6-week terms per year for two years. The rationale for this class is to facilitate the learner's ability to understand and recognize the various aspects of industry while building a sound foundation of transferable knowledge that may be applied in future educational courses, military, or work place/career opportunities.

#### Textbook and Resources:

- Precision Machining Technology textbook – NIMS certified text
- Amatrol Learning Activity Packets (LAP)
- Machinist's Handbook
- Students are required to bring pen, pencil, and paper to class each day (these are provided by the MOCC at the beginning of the year). Students are required to have a computer and internet service at home or available via other means.
- The school will provide study guides and essential materials to perform Learning Activity Packet (LAP) tasks and machining functions.
- Amatrol Elearning Curriculum

#### Course Content:

- Robotics and Automation
- Design Processes/Technical Prints and drawings, CAD and CAM
- Electrical Systems/Industrial Logic Systems and Industrial Electronics
- Fluid Power/Hydraulic and Pneumatic Systems
- Machining Processes/Manual & CNC Mill, lathe, drill press, surface grinder, etc...
- Quality Control/Precision Measurement, Print Reading, Part Inspection
- Plastics/Injection Molding and Mold Design

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### Program Pace Guide:

See attached Course Map

### Categorical Grading:

- Career Readiness Practices: 30%
- Quizzes: 10%
- Projects/Notebooks: 40%
- Attendance: 10%
- Daily Participation: 10%

For each Learning Activity Packet (LAP) the learner will perform a skill, activities or a computer-generated operation accompanied by self-reviews, a quiz, and skills test. The Student will write a short research paper outlining a current event of interest within one of the lab occupational fields. Students will be responsible for keeping a daily journal of materials learned, special interest, and their accomplishments within the LAP or on the machine. Trainers, simulators, equipment and computers are available to provide hands-on learning techniques that will enhance the learner's depth of knowledge throughout a unit. Other projects will consist of the student designing, costing, machining, or molding, a wide variety of program appropriate and safe, ideas.

### Grading Narrative:

- A quiz at both the beginning and end of each LAP is required before taking the skills test. The quiz will be the same for both iterations, and the first one will be ungraded. Use it as a study guide for the second quiz!
- A skills test is required at the end of each LAP.
- A research paper about a current event or history event in one of the areas of interest within the lab.
- Projects will provide hands-on learning techniques to enhance the learner's depth of knowledge throughout different units. Projects consist of 2 grades compiled to one Skill Level achievement score. These project scores account for 40% of your grade. 20% being the knowledge or understanding of the processes used and 20% being the product itself... IF it meets the specifications called out on the part print.

### Grading Scale

<u>Description</u>	<u>Rubric Score</u>	<u>Percentage</u>	<u>Letter Grade</u>
Advanced	4	100	A
Advanced	3.75-3.99	97	A
Proficient	3.50-3.74	94	A
Proficient	3.25-3.49	90	A-
Proficient	3.00-3.24	87	B+
Developing	2.88-2.99	84	B
Developing	2.75-2.87	80	B-
Developing	2.63-2.74	77	C+

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Developing	2.50-2.62	74	C
Developing	2.25-2.49	70	C-
Developing	2.00-2.24	67	D+
Beginning	1.75-1.99	64	D
Beginning	1.50-1.74	60	D-
Beginning	1.20-1.49	50	F
Beginning	0.90-1.19	40	F
Beginning	0.60-0.89	30	F

### Late Work Policy:

- All LAP work will be completed and turned in before advancing to the next LAP. If the LAP is incomplete, it should be completed during the next rotation into that particular station.
- Late assignments will result in a grade reduction in the Personal Management section of the Career Readiness Practices. This allows accurate scoring of the work produced by the Student.
- All Projects will be turned in before advancing to another project.

### Remediation and Retest Policy:

- Provisions are available for those with IEP's, 504's, or who exhibit reading difficulty.
- Students who score lower than an 80% will be required to retest to achieve a score higher than an 80% for safety assessments.

### State Tests Required:

- None required, although Students wishing to become Mastercam certified will be able to free of charge.
- Haas CNC certifications Level 1 and Level 2 may be attained, free of charge. Multiple hands-on tasks will be completed and a final part will be programmed with tools set and work offsets set to run the part. Part must pass inspection to become certified.

### Attendance

See Handbook

### Tardiness

- Students will be considered tardy if they are not at the work tables with notebook and writing utensils when class begins.
- All tardy students must sign in with a QR code.

### Available Embedded Academic Credit:

4<sup>th</sup> Year Math Credit

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### Direct and Articulated Credit Opportunities:

- Ferris State University
- Mid-Michigan Community College
- Baker College
- Davenport University

### Classroom Rules:

- First and foremost, attendance every day is required! You will miss a lot and it is not fair to others to have to “catch” you up. Our job is to prepare you for the workplace or post-secondary education; both have told us that attendance is key and the No. 1 reason for an employee being relieved of their duties!
- There is a zero tolerance cell phone policy, unless there is an emergency. In the workplace, you will be expected to stay off your cell phones until break time or lunch, not on company time when you’re expected to be working. If your parents need to get a hold of you, have them call the main office or directly to the shop phone at ext. 1128.
- Students will be respectful of peers and lab property.
- Students will abide by posted safety rules and procedures.
- Horseplay of any form in the classroom or lab area is NOT tolerated and will be dealt with immediately and appropriately. Safety reports will be required dealing with infraction and injuries related to observed infractions.
- Inappropriate language will not be tolerated.
- Please refer to the school handbook policies for proper behavior and consequences.

### Classroom Procedures and Routines:

- Upon entering class, power off or silence your cell phone, and drop it into one of the sleeves of the cell phone station until break time or the end of class. If you leave your cell phone behind after you go home for the day, the teacher will try to put the cell phone in a secure location... Be responsible for your private property!
- While the teacher is not liable for any stolen property, it should be immediately reported if a belonging of yours comes up missing.
- Before sitting down, grab your labeled binder and find your seat. Be sure to have your pencil/pen and notebook at the ready when the bell rings.
- At the start of each class, grab a Chromebook from the rolling cart next to the exterior back door. When you put the Chromebook back for the day, make sure to plug it in for the next class!
- When you need to use the restroom, make sure to write your first name and last initial along with the acronym “RR” on the right side of the whiteboard at the head of the classroom. That way, in the event of an emergency the teacher will know where to find you so you will be accounted for. This is important!
- The only door used to enter and exit the classroom each day will be the main wooden door leading into the MOCC hallways - unless there is a fire drill, in which case, all students will walk single-file out of the back exterior steel door (make sure to leave the door popped open!)

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- An absence request be completed prior to an absence or upon the first returning day after the student returns to class. If this is not done ahead of time, the student will call or email the teacher to alert them, and will be marked absent.
- We do not stand at the door waiting for release. Students leave from their seats when dismissed.

### Clothing/Attire:

- Students **are required** to dress appropriately for safety purposes (and pride), we have a potentially dangerous lab area.
- Clean jeans, without holes are best for our shop.
- Pajama pants, athletic pants made of dri-fit materials, sweat pants, or shorts are not permitted - no exceptions!
- Leather work boots are mandatory! If you cannot find (or afford) leather boots come see your instructor - he has connections...
- No sleeveless shirts, no loose fitting garments, no hoodies in the lab or once class begins
- No jewelry. This includes rings, hoop earrings, necklaces, wrist watches, or gages in the ears.
- Shoulder length or longer hair will need to be tied back with a hair tie (there are hair ties located in the first aid kit).
- **We will have industrial field trips to local manufacturing locations and local colleges and universities. For this reason, students will need to have casual dress pants or khakis as well as a dress shirt with belt and dress shoes.** We are proud of our high standards set by past representation of our program while on tour. We will continue that tradition well into the future! If you cannot acquire these clothes, come find your instructor and a solution will be brainstormed.
- You never know who you might meet on our tours. It could be your next boss. We all know that we only get one attempt at that first impression!

### Internet:

Students will need to have an internet connection and working computer at home, or at their access.

**EACH STUDENT WILL RECEIVE A SCHOOL POLICY HANDBOOK AT THE BEGINNING OF THE SCHOOL YEAR. A COPY IS ALSO AVAILABLE AT THE OFFICE FOR REFERENCE IF NEEDED.**

Notice of Nondiscrimination In compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, and the State of Michigan's Elliott-Larsen Civil Rights Act of 1977, Section 102(a) it is the policy of the Mecosta-Osceola Intermediate School District that no person shall, on the basis of race, color, religion, national origin or ancestry, gender, age, disability, height, weight, or marital status be excluded from participation in, be denied the benefits of, or be subjected to discrimination during any program or activity or in employment. In addition, arrangements can be made to ensure that the lack of English language skills is not a barrier to admission or participation. Inquiries regarding this policy should be directed to: Assistant Superintendent, Mecosta-Osceola Intermediate School District, 15760 190th Avenue, Big Rapids, MI 49307, Telephone (231) 796-3543.