

# CAM 1108: Machine Shop Fundamentals

## Credit Type – Proficiency



MIAMI VALLEY  
**TECHPREP**  
CONSORTIUM

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Course Description and Learning Outcomes:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <a href="https://www.sinclair.edu/course/params/subject/CAM/courseNo/1108/">https://www.sinclair.edu/course/params/subject/CAM/courseNo/1108/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Faculty Pathway Specialist(s)</b> (Please include name, email and office hours):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| David Griffith, <a href="mailto:david.griffith6042@sinclair.edu">david.griffith6042@sinclair.edu</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Resources Needed to Offer Course</b> (software, equipment, books [include ISBN and edition], etc. – please include any associated costs):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>Required Textbook:</b> Precision Machining Technology by Hoffman, Peter J.; Hopewell, Eric S. Edition: 3rd<br/> <b>ISBN:</b> 9781337795302 <b>Format:</b> Hardcover <b>Publisher:</b> Cengage Learning Pub. Date: 1/4/2019.</p> <p><b>Note:</b> An instructor may ask to have other projects, textbooks, or even tests approved by the Faculty Pathway Specialist that would meet the Sinclair CAM department requirements. This approval would need to be in place before ever attempting to offer this course for credit. Failure to get prior approval will result in no course credit being earned.”</p> <p>The machine lab must consist of manual vertical mills, manual lathes, drill presses, pedestal or bench grinders, along with all other peripheral tooling and hand tools needed to complete all the required projects and operations.</p> <p><b>Note:</b> If you have never offered this course before, contact your Pathway Manager to arrange a visit to the Sinclair machine lab.</p> |
| <b>How is the final grade for the course determined?</b> (Please list all required assignments, assessments, etc.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2 exams, a series of topic quizzes, and successful completion of layout and producing parts on the drill press, lathe, and mill are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Who is responsible for grading the required assignments and/or assessments?</b> (Faculty or instructor?)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The high school instructor is responsible for scoring/grading all assessments and entering or submitting the grades as required by the Tech Prep office. All tests should be kept to prove that the student has completed the coursework.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>What is the grading scale for the course?</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Standard Sinclair grading scale used for course.</p> <p>90-100 = A<br/> 89 – 80 = B<br/> 79 – 70 = C<br/> 69 – 60 = D<br/> 59 – 0 = F</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Must students access the eLearn shell regularly to complete requirements?</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Does the course require access to YouTube, GoogleDrive, etc.?</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| No. The instructor may use the shell and videos at their leisure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Additional course details or requirements important for instructors not covered above:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| This course, in order to receive proficiency credit, must meet certain requirements for machining and each student must complete all of those machining requirements in order to receive that grade. We use blueprints for the projects we use in our course and while we prefer that those projects be followed. Inspection sheets used for grading our projects can be supplied to the instructor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

**NOTE:** An instructor may ask to have other projects, textbooks, or even tests approved by the Faculty Pathway Specialist that would meet the Sinclair CAM department requirements. This approval would need to be in place before ever attempting to offer this course for credit. Failure to get prior approval will result in no course credit being earned. Please contact us before starting this course.

**Most common (or popular) degrees this course is in?**

Computer Aided Manufacturing/Precision Machining (CAMPM.S.AAS)

Computer Aided Manufacturing/CNC Technology (CAMCT.S.AAS)

*This course may also apply to some of the certificate options offered by the Computer Aid Manufacturing department.*