DET2248 - CNC Applications

Credits:	3 (2/1/0)
Description:	The objective of this course is to develop students' knowledge of computer numerical control system components, programming codes for linear and circular interpolation and basic CAD/CAM integration.
Prerequisites:	• DET1114 • DET2200 • DET2210
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Interpret machine axis movements in the X, Y and Z planes. 2. Analyze and apply point-to-point programming to generate linear interpolation toolpaths. 3. Analyze and apply continuous path programming to generate circular and linear interpolation toolpaths. 4. Utilize incremental programming modes to generate code sequences for toolpaths. 5. Utilize absolute programming modes to generate codes sequences for toolpaths. 6. Write comprehensive linear interpolation programs for part toolpathing. 7. Write comprehensive circular interpolation programs for part toolpathing. 8. Utilize a virtual computer numerical control environment to analyze programs for functionality, correct toolpathing and interference checks. 9. Utilize CAD/CAM software to generate part toolpathing for three-axis machining.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*

© 2026 Minnesota State Community and Technical College.
We reserve the right to periodically update information without notice.
The information in this publication should not be regarded as contractual in nature.