Minnesota State
Community and Technical College

# MCDD2246 - Tool Design

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| Credits: | 3 (2/1/0) |
| Description: | The objective of this course is to develop an understand of jigs, fixtures, dies and their function in mass production, from the basic levels of component pieces through design and implementation. |
| Prerequisites: | • CADD1400<br>• CADD1410<br>• MCDD1106 |
| Corequisites: | • MCDD2200<br>• MCDD2210 |
| Pre/Corequisites*: | |
| Competencies: | 1. Analyze tool design objectives and designer responsibilities.<br>2. Apply product planning and production theories.<br>3. Apply design economics using comparative analysis.<br>4. Calculate part costs.<br>5. Calculate labor expenses related to production.<br>6. Calculate tool costs relative to design criteria.<br>7. Design a template jog for part production.<br>8. Design a leaf jig for part production.<br>9. Design a box jig for part production.<br>10. Generate three-dimensional prototypes based on design geometry. |
| MnTC goal areas: | None |

*Can be taking as a Prerequisite or Corequisite.*