



**COMMITTEE MEETING**

Wednesday, November 30, 2016

1:30 p.m.

Faculty Lounge Room 1246

**CURRICULUM PROPOSAL MINUTES**

**NEW COURSES**

COURSE ID	PROPOSAL TYPES	CLASS SIZE	CLASS SIZE JUSTIFICATION	EFF DATE	JUSTIFICATION
MACH 101 F Introduction to Machine Tools  Tabled- waiting for all MACH proposals	Units: 5 Lecture: 3 Laboratory: 6  Prerequisites: NONE	20	Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.	2018 Fall	This new Mach 101 F class will replace the Mach 091 F class. The new 101 F class is intended for certificate students and for students wishing to transfer and continue their studies in the field of manufacturing; engineering; or industrial arts at a 4 year institution.
MACH 102 F Intermediate Machine Tools  Tabled- waiting for all MACH proposals	Units: 5 Lecture: 3 Laboratory: 6  Prerequisite: MACH 101 F	20	Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.	2018 Fall	This new Mach 102 F class will replace the Mach 092 F class. The new 102 F class is intended for certificate students and for students wishing to transfer and continue their studies in the field of manufacturing; engineering; or industrial arts at a 4 year institution.



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<p>MACH 103 F Advanced Machine Tools</p> <p style="color: red; font-size: small;">Tabled- waiting for all MACH proposals</p>	<p>Units: 5 Lecture: 3 Laboratory: 6 Prerequisite: MACH 102 F</p>	<p>20</p>	<p>Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.</p>	<p>2018 Fall</p>	<p>This new Mach 103 F class will replace the Mach 093 F class. The new 103 F class is intended for certificate students and for students wishing to transfer and continue their studies in the field of manufacturing; engineering; or industrial arts at a 4 year institution.</p>
<p>MACH 104 F Advanced Topics in Machine Technology</p> <p style="color: red; font-size: small;">Tabled- waiting for all MACH proposals</p>	<p>Units: 5 Lecture: 3 Laboratory: 6 Prerequisite: MACH 103 F</p>	<p>20</p>	<p>Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.</p>	<p>2018 Fall</p>	<p>This Mach 104 F class is a new class. The new 104 F class is intended for certificate students and for students wishing to transfer and continue their studies in the field of manufacturing; engineering; or industrial arts at a 4 year institution.</p>
<p>MACH 140 F Basic CNC Swiss Style Lathe Set-up and Operation</p> <p style="color: red; font-size: small;">Tabled- waiting for all MACH proposals</p>	<p>Units: 3 Lecture: 2.5 Laboratory: 1.5 Prerequisite: MACH 110 F</p>	<p>20</p>	<p>Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.</p>	<p>2018 Fall</p>	<p>This is a new course for the Swiss Lathe certificate that will be implemented to teach students on new state of the art equipment. At this time, there are no other community colleges teaching this type of equipment. See attached Advisory Committee Meeting Minutes.</p>
<p>MACH 142 F Advanced CNC Swiss Style Lathe</p>	<p>Units: 3 Lecture: 2.5 Laboratory: 1.5 Prerequisite:</p>	<p>20</p>	<p>Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which</p>	<p>2018 Fall</p>	<p>This is a new course for the Swiss Lathe certificate that will be implemented to teach students on new state of the</p>

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Set-up and Operation  Tabled- waiting for all MACH proposals	MACH 140 F		can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.		art equipment. At this time, there are no other community colleges teaching this type of equipment. See attached Advisory Committee Meeting Minutes.
MACH 145 F Basic CNC Swiss Style Lathe Programming and Applications  Tabled- waiting for all MACH proposals	Units: 3 Lecture: 2.5 Laboratory: 1.5 Prerequisite: MACH 142 F	20	Students in this course use industrial type machine tools with 3 axes or more being used by students in a lab to cut metal parts. These machines have rotating metal cutters as well as rotating parts which can present a danger to students if the correct methods and procedures are not used hence proper supervision of students is a must. Maximum number of students allowed for safety concerns and per the request of the advisory committee is 20. This number is also in alignment with the National Science Teacher Association Safety Advisory Board Study in 2014 which shows that injuries increase dramatically with class sizes above 20. Advisory Committee minutes and NSTA Safety study are posted in Attached Files in Curricunet.	2018 Fall	This is a new course for the Swiss Lathe certificate that will be implemented to teach students on new state of the art equipment. At this time, there are no other community colleges teaching this type of equipment. See attached Advisory Committee Meeting Minutes.
MACH 156 F Advanced CNC Programming Using Surfcam  Tabled- waiting for all MACH proposals	Units: 3 Lecture: 2.5 Laboratory: 1.5 Prerequisite: MACH 154 F	20	Feedback/Evaluation - Labs in which the instructor provides extensive individualized feedback/evaluation on a regular basis. (e.g. problem sets, scientific experiments, vocational skills, lab reports). Maximum number of students allowed at this time for safety concerns and per request of advisory committee. See Advisory meeting minutes for class size justification of 20.	2018 Fall	This new Mach 156 F class will replace the Mach 062 F class. The new 156 F class is intended for certificate students and for students wishing to transfer and continue their studies in the field of manufacturing; engineering; or industrial arts at a 4 year institution.

**REVISED COURSES**

COURSE ID	ACTION TAKEN	CLASS SIZE	CLASS SIZE JUSTIFICATION	EFF DATE	JUSTIFICATION
ETHS 130 F African- American History I Units: 3 Lecture: 3 Laboratory: 0  MSU Approved	<ul style="list-style-type: none"> <li>Textbooks</li> <li>Student Learning Outcomes</li> <li>Method of Instruction</li> <li>Method of Evaluation</li> <li>Objectives Revision</li> </ul>	35	While the instructor does lecture, much of the class time focuses on discussion, group learning, and/or formal/informal student presentations. Evaluation primarily through objective exams. Writing assignments are assessed mostly for concepts and structure	2017 Fall	Minor course revision to update the textbooks so publication dates are in compliance with Title 5 mandate. SLO update.



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<b>DELETE COURSES</b>		
COURSE ID	EFF DATE	JUSTIFICATION
MACH 040 F CNC Wire EDM Prog & Operations	2018 Fall	Course deletion, not replacing a new course. The machine technology program no longer has the equipment to support instruction of this class.
MACH 043 F Advanced Topics in Machine Technology	2018 Fall	Course deletion. This 043 F machine technology course is being replaced by the Machine Technology 104 F course.
MACH 050 F CNC Programming Using Mastercam	2018 Fall	Course deletion. This 050 F machine technology course is being replaced by the Machine Technology 150 F course.
MACH 060 F CNC Programming Using SURFCAM	2018 Fall	Course deletion. MACH 60 F is being deleted and replaced by MACH 154 F.
MACH 090 F Multiple Axis CNC Set and Operation	2018 Fall	Course Deletion. Deleting MACH 090 F course and replacing it with MACH 130 F.
MACH 091 F Introduction to Machine Tools	2018 Fall	Course Deletion. Deleting MACH 91 F course and replacing with MACH 101 F.
MACH 092 F Interm Machine Tools	2018 Fall	Course Deletion. Deleting MACH 092 F course and replacing with MACH 102 F.
MACH 093 F Advanced Machine Tools	2018 Fall	Course deletion. Deleting MACH 093 F course and replacing with MACH 103 F.
MACH 098AF Machining Skills Lab	2018 Fall	Course deletion. This 098AF machine technology course is not being offered due to current requirements from the State that prohibit repeating of classes. This course I do not believe has ever been offered.

Tabled-ALL MACH DELETED PROPOSALS. wtg for all MACH proposals

<b>MODIFY DEGREES/CERTIFICATES</b>				
DEGREE	REVISION TYPE		EFF DATE	JUSTIFICATION
Machine Technology	<ul style="list-style-type: none"> <li>Catalog Description Update</li> <li>Six-Year Review</li> <li>TOPS Code Revision</li> <li>Program SLOA Addition</li> <li>Removing Courses from "Required"</li> <li>Adding Courses to "Required"</li> </ul>	<b>CNC Operator Skills Certificate</b>  The CNC Operator Skills Certificate is designed to prepare students for entry-level employment as CNC (Computer Numerical Control) machine tool operators and to enhance the skills of machinists who are currently employed in the trade. This type of certificate program can also lead to entry level careers as a machinist, toolmaker, CNC programmer, manufacturing engineer, process engineer, field service technician as well as a number of other manufacturing/service positions. This certificate requires a total of 14 units. At least one half of the units toward the certificate must be completed at Fullerton College. A minimum grade of C is required for each course taken. Required courses (14 units) Units	2018 Fall	Six-Year Review, removing courses MACH 086 F, MACH 091 F, MACH 087 F, and MACH 088 F. Adding new courses MACH 101 F, MACH 110 F, MACH 115 F, and MACH 120 F. These changes do not change the total units required for certificate. New courses in the approval process FY 2018.

Tabled-  
waiting for all  
MACH  
proposals



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		<p>MACH 101 F Introduction to Machine Tools 5</p> <p>MACH 110 F CNC Machine Set-Up and Operation 3</p> <p>MACH 115 F CNC Parts Programming 3</p> <p>MACH 120 F Advanced CNC Machining 3</p> <p>Total Units 14</p>														
<p>Machine Technology</p> <p>Tabled- waiting for all MACH proposals</p>	<ul style="list-style-type: none"> <li>• CIP Code Revision</li> <li>• Catalog Description Update</li> <li>• Six-Year Review</li> <li>• TOPS Code Revision</li> <li>• Program SLOA Revision</li> <li>• Program SLOA Addition</li> <li>• Removing Courses from "Required"</li> <li>• Adding Courses to "Required"</li> </ul>	<p><b>Machine Technology Level I Certificate</b></p> <p>The Machine Technology Level I Certificate Program is designed for students wishing to pursue a career in machining or manufacturing. This type of certificate program typically leads to entry level careers as a machinist, toolmaker, CNC operator, CNC programmer, manufacturing engineer, process engineer, field service technician as well as a number of other manufacturing/service positions. This certificate requires a total of 18 units. At least one half of the units toward the certificate must be completed at Fullerton College. A minimum grade of C is required for each course taken.</p> <table> <thead> <tr> <th>Required Courses (18 units)</th> <th>Units</th> </tr> </thead> <tbody> <tr> <td>MACH 101 F Introduction to Machine Tools</td> <td>5</td> </tr> <tr> <td>MACH 102 F Intermediate Machine Tools</td> <td>5</td> </tr> <tr> <td>MACH 103 F Advanced Machine Tools</td> <td>5</td> </tr> <tr> <td>MACH 110 F CNC Machine Set-Up and Operation</td> <td>3</td> </tr> <tr> <td>Total Units</td> <td>18</td> </tr> </tbody> </table>	Required Courses (18 units)	Units	MACH 101 F Introduction to Machine Tools	5	MACH 102 F Intermediate Machine Tools	5	MACH 103 F Advanced Machine Tools	5	MACH 110 F CNC Machine Set-Up and Operation	3	Total Units	18	2018 Fall	<p>This program is being revised as part of the six year review process and to add the SLOA to the program. As part of the Six-Year Review, removing courses MACH 086 F; MACH 091 F, MACH 092 F, and MACH 093 F. Adding new courses MACH 101 F, MACH 102 F; MACH 103 F; MACH 110 F. Removed MACH 116 F. These changes do not change the total number of units required for certificate. New courses in the approval process FY 2018. TOP code has been changed from "Machining and Machine Tools" 956.30 to "Manufacturing and Industrial" 956.00 to reflect a more comprehensive category which is in alignment with teaching strategies to make students more employable. TOP code 956.00 is also in alignment with CIP code which will allow students to transfer to a 4 year school more easily. Does not change the total of units. The total units were initially incorrect. No other changes have been made.</p>
Required Courses (18 units)	Units															
MACH 101 F Introduction to Machine Tools	5															
MACH 102 F Intermediate Machine Tools	5															
MACH 103 F Advanced Machine Tools	5															
MACH 110 F CNC Machine Set-Up and Operation	3															
Total Units	18															