

ENGINEERING PROGRAM CLUSTER

Mechanical Design Technology (10-606-1) 2017-2018 Curriculum		
Course#	Title	Cr.
Semester 1:		
103-159	Computer Literacy	1
606-176	CAD 2-D, AutoCAD	3
617-114	CAD 3-D, SolidWorks	3
623-162	Manufacturing Processes	3
804-113	College Technical Math 1A	3
804-114	College Technical Math 1B	2
890-101	College 101	2
Total 1st Semester Credits		17
Semester 2:		
606-116	Machine Elements	3
606-132	Materials of Industry	3
617-115	Jig and Fixture Design	3
801-136	English Composition 1	3
804-116	College Technical Math 2	4
809-1xx	Behavioral Science Course	3
Total 2nd Semester Credits		19
Semester 3:		
606-107	Component Design	4
606-112	Integrated Mfg Planning - Mechanical Design	2
606-128	Design Statics	3
623-196	Geometric Dimensioning & Tolerancing	3
801-1xx	Communication Course	3
Total 3rd Semester Credits		15
Semester 4:		
606-111	Integrated Mfg Production, Mechanical Design	2
606-125	Product Design	4
606-130	Strength of Materials	3
617-149	Tool Design	4
809-1xx	Social Science Course	3
Total 4th Semester Credits		16
*	Elective	3
Total Program Credits		70

*Students must take an additional 3 credits of electives

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Die Design Certificate (97-617-1) 2017-2018 Curriculum		
Course#	Title	Cr.
617-114	CAD 3-D, SolidWorks	3
617-115	Jig & Fixture Design	3
617-123	Adv. Solidworks Assembly Modeling	3
617-149	Tool Design	4
617-147	Die Design 2	3
617-148	Die Design 3	3
Total Die Design Certificate Credits		19

Mold Design Certificate (97-617-2) 2017-2018 Curriculum		
Course#	Title	Cr.
617-114	CAD 3-D, SolidWorks	3
617-115	Jig & Fixture Design	3
617-123	Adv. Solidworks Assembly Modeling	3
617-149	Tool Design	4
617-152	Mold Design 2	3
617-153	Mold Design 3	3
Total Mold Design Certificate Credits		19



Classes in **BLACK** are program specific
 Classes in **RED** are shared with other program(s)
 Classes in **BLUE** are institutional requirements
 Classes in **PURPLE** are in the certificates only.

Process Engineering Technology (10-623-8) 2017-2018 Curriculum		
Course #	Title	Cr.
Semester 1:		
103-159	Computer Literacy	1
606-176	CAD 2-D, AutoCAD	3
617-114	CAD 3-D, SolidWorks	3
623-162	Manufacturing Processes	3
801-136	English Composition 1	3
804-113	College Technical Math 1A	3
890-101	College 101	2
Total 1st Semester Credits		18
Semester 2:		
617-115	Jig & Fixture Design	3
623-190	Basic Metrology	3
628-136	Statistical Process Control	3
801-1xx	Communication Course	3
804-114	College Technical Math 1B	2
Total 2nd Semester Credits		14
Semester 3:		
623-118	Gage Calibration, Repeatability/Reproducibility (or)	3
628-122	Basic CNC Programming and Operation	
623-151	Lean Manufacturing	3
623-170	Process Planning	2
623-196	Geometric Dimensioning & Tolerancing	3
628-110	Integrated Mfg Planning - Process Engineer. Tech.	2
806-137	Comprehensive Tech Physics	4
Total 3rd Semester Credits		17
Semester 4:		
628-111	Integrated Mfg Production, Engineering Technologist	2
628-132	Advanced CNC Programming and Operation	3
620-151	Fanuc Robotics and Vision Systems	3
628-142	Computer Aided Manufacturing	3
623-106	Quality Tools	3
623-134	Basic CMM Programming and Operation	3
623-167	ISO 9001 and Auditing	3
809-1xx	Social Science Course	3
809-1xx	Behavioral Science Course	3
Total 4th Semester Credits		17
*	Elective	3
Total Program Credits		69
*Students must take an additional 3 credits of electives		
Students are required to take 9 credits from one of the following 2 tracks:		
	Quality Assurance Track	9
	Industrial/Manufacturing Track	9

Industrial -
Mfg.
Track

Quality
Assurance
Track