

Precision Machining

Semester Course Outline • 2021 – 2022

18 Months (4 Semesters) • Revised: 6/21/21

Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 67



First Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
PM 101	Machine Tool Theory	15	1
PM 106	Blueprint Reading and CAD Introduction	15	1
PM 110	Precision Measuring	28	1
PM 117	Applied Trigonometry	28	1
PM 118	Turning/Milling Theory	15	1
PM 131	Lathe and Mill Operations I	84	3
PM 133	Lathe and Mill Operations II	70	2.5
PM 134	Machine Tool Fundamentals	28	1
CSC 102	Windows Applications for Technicians	45	3
<ul style="list-style-type: none"> Selected Mathematics Course (Choose one) MATH 100 – Applied General Math MATH 101 – Intermediate Algebra MATH 114 – College Algebra * 		45	3
Total		373	17.5

First Year –Spring Semester

Course Number	Course Title	Clock Hours	Credits
PM 152	Advanced Lathe and Mill Theory	15	1
PM 160	Advanced Lathe and Mill Operations I	84	3
PM 162	Advanced Lathe and Mill Operations II	56	2
PM 167	Introduction to Computer Numerical Control (CNC)	28	1
PM 168	Precision Grinding	56	2
PM 172	Computer Numerical Control (CNC) Turning Center	84	3
PM 185	CNC VMC Operations	84	3
<ul style="list-style-type: none"> Selected Behavioral Science Course (Choose one) PSYC 100 – Psychology of Human Relations PSYC 101 – General Psychology * 		45	3
Total		452	18

Second Year – Fall Semester

Course Number	Course Title	Clock Hours	Credits
PM 207	Advanced Computer Numerical Control (CNC) Theory I	30	2
PM 208	Advanced Computer Numerical Control (CNC) Operations I	70	2.5
PM 217	Intro to Electrical Discharge Machines	28	1
PM 218	Advanced Electrical Discharge Machines	28	1
PM 221	Fixture-Making Theory	15	1
PM 222	Fixture-Making Applications	56	2
PM 226	Die-Making Theory	15	1
PM 227	Die-Making Lab	84	3
<ul style="list-style-type: none"> Selected Social Science Course (Choose one) ECON 105 – Leadership in the Global Workplace ECON 201 – Principles of Microeconomics I * ECON 202 – Principles of Macroeconomics II * SOC 100 – Introduction to Sociology * 		45	3
Total		371	16.5

Second Year – Spring Semester

Course Number	Course Title	Clock Hours	Credits
PM 212	CAD CAM	28	1
PM 236	Measurement Inspection Techniques	28	1
PM 261	Basic Molding Processes	28	1
PM 267	Basic Molding Operations	84	3
PM 272	Advanced Computer Numerical Control (CNC) Theory II	15	1
PM 274	Advanced Computer Numerical Control (CNC) Operations II	84	3
PM 277	Project	56	2
<ul style="list-style-type: none"> Selected Communications Course (Choose one) CMST 101 – Fundamentals of Speech * (CSS 100 – Career Search Strategies .5 credit) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) 		45	3
Total		368	15

- Students will select a course in each of the areas listed to meet general education requirements. Courses marked with an asterisk (*) can be transferred directly to the university system and may be substituted for recommended courses on the outline. Students should speak with an advisor before doing so.

Students who select to take transferable communications course CMST 101 or ENGL 101, must also register for CSS 100 – Career Search Strategies for .5 credit. This curriculum is required for all Lake Area Tech graduates and is included in the COMM 101 course but is separate from the university system.