

Precision Machining • Part-time Hybrid E-Degree

Semester Course Outline • 2023 – 2024

31 Months (6 Semesters, 2 Summer Sessions) • Revised: 1/20/23

Associate of Applied Science (A.A.S.) Degree • Credits Required for Graduation: 70



First Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credits
PM 106	Blueprint Reading	15	1
PM 110	Precision Measuring	28	1
PM 117	Applied Trigonometry	56	2
PM 131	Mill and Lathe Operations I	56	2
PM 133	Mill and Lathe Operations II	56	2
PM 134	Machine Tool Fundamentals	28	1
Total		239	9

First Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credits
PM 107	Computer Numerical Control (CNC) Operations I	56	2
PM 152	Advanced Mill and Lathe Theory	15	1
PM 160	Advanced Mill and Lathe Operations I	28	1
PM 162	Advanced Mill and Lathe Operations II	154	5.5
PM 167	Introduction to Computer Numerical Control (CNC)	15	1
● Selected Mathematics Course (Choose one) MATH 100 – Applied General Math MATH 101 – Intermediate Algebra MATH 114 – College Algebra *		45	3
Total		313	13.5

First Summer Semester (May – July)

Course Number	Course Title	Clock Hours	Credits
CSC 102	Windows Applications for Technicians	45	3
● Selected Behavioral Science Course (Choose one) PSYC 100 – Psychology of Human Relations PSYC 101 – General Psychology *		45	3
Total		90	6

Semester Course Outline • 2023 – 2024

Second Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credits
PM 154	Computer Numerical Control (CNC) Operations II	140	5
PM 168	Precision Grinding	56	2
Total		196	7

Second Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credits
PM 201	Advanced Computer Numerical Control (CNC) I	98	3.5
PM 203	Electrical Discharge Machining	56	2
PM 205	Intro to Computer-Aided Design (CAD)	28	1
PM 210	Jig and Fixture Making	84	3
Total		266	9.5

Second Summer Semester (May – July)

Course Number	Course Title	Clock Hours	Credits
<ul style="list-style-type: none"> ● Selected Communications Course (Choose one) <li style="padding-left: 20px;">CMST 101 – Fundamentals of Speech * (CSS 100 – Career Search Strategies .5 credit) <li style="padding-left: 20px;">COMM 101 – Communications and Career Strategies <li style="padding-left: 20px;">ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) 		45	3
<ul style="list-style-type: none"> ● Selected Social Science Course (Choose one) <li style="padding-left: 20px;">ECON 105 – Leadership in the Global Workplace <li style="padding-left: 20px;">ECON 201 – Principles of Microeconomics I * <li style="padding-left: 20px;">ECON 202 – Principles of Macroeconomics II * <li style="padding-left: 20px;">SOC 100 – Introduction to Sociology * 		45	3
Total		90	6

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Third Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credits
PM 212	Advanced CAD and CAM	28	1
PM 214	Tool and Die Making	112	4
PM 219	Advanced Computer Numerical Control (CNC) II	140	5
PM 236	Measurement Inspection Techniques	28	1
Total		308	11

Third Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credits
PM 216	Basic Mold Making	112	4
PM 220	Robot Integration	28	1
PM 277	Precision Machining Class Project	84	3
Total		224	8

Note: Labs will be on campus and scheduled in order to best accommodate all enrolled students.

- 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.