Precision Machining • Part-time Hybrid E-Degree

Semester Course Outline • 2020 – 2021

31 Months (6 Semesters, 2 Summer Sessions) • Revised: 6/16/20

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

LAKE AREA TECH COLLEGE

First Fall Semester (August – December)

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 118	Turning/Milling Theory	15	1
PM 134	Machine Tool Fundamentals	28	1
PM 138	Lathe and Mill Operations I with Lab	154	5.5
	Total	255	10.5

First Spring Semester (January – May)

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 167	Introduction to Computer Numerical Control (CNC)	28	1
PM 168	Precision Grinding	56	2
• Selected Mathematics Course (Choose one) MATH 100 – Applied General Math MATH 101 – Intermediate Algebra MATH 114 – College Algebra *		45	3
	Total	228	10

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

Second Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credits
PM 117	Applied Trigonometry	28	1
PM 162	Advanced Lathe and Mill Operations II	56	2
PM 172	Computer Numerical Control (CNC) Turning Center	84	3
PM 217	Into to Electrical Discharge Machines	28	1
	Total	196	7

Second Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credits
PM 185	CNC VMC Operations	84	3
PM 207	Advanced Computer Numerical Control (CNC) Theory I	30	2
PM 208	Advanced Computer Numerical Control (CNC) Operations I	70	2.5
PM 218	Advanced Electrical Discharge Machines	28	1
PM 236	Measurement Inspection Techniques	28	1
	Total	240	9.5

Second Summer Semester (May – July)

Course Number	Course Title	Clock Hours	Credits
● Selected Communications Course (Choose one) COMM 101 – Communications and Career Strategies ENGL 101 – Composition * (CSS 100 – Career Search Strategies .5 credit) SPCM 101 – Fundamentals of Speech * (CSS 100 – Career Search Strategies .5 credit)		45	3
● 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		6

Third Fall Semester (August – December)

Course Number	Course Title	Clock Hours	Credits
PM 212	CAD CAM	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
	Total	198	8

Third Spring Semester (January – May)

Course Number	Course Title	Clock Hours	Credits
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 or PM 279	Precision Machining Project or Internship	56	2
	Total	267	10

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 a transferable general education communications course 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.