Idaho State University

Catalog Year 2023-2024
AAS, Computerized Machining Technology

(For internal use only)

☒ *No change*

☐ *UCC proposal*

A Major Academic Plan (MAP) is one way to complete a degree in a set number of semesters. The *example* below is only one strategy. Actual plans for individual students will vary based on advisor recommendations and academic needs. Official Program Requirements including Major, General Education, Electives, and university requirements (see pg.2) are based on Catalog Year.

Course Subject and Title	Cr.	Min. Grade	*GE, UU or UM	**Sem. Offered	Prerequisite	Co-Requisite
Semester One						
GE Objective 1: ENGL 1101 Writing and Rhetoric I	3	D-	GE	F, S, Su	The Write Class	
MACH 1110: Machine Tool Lab I (early 8 weeks)	3	D-		F	Minimum score of 14 on ALEKS or equivalent	MACH 1111
MACH 1111: Machine Tool Theory I (early 8 weeks)	2	D-		F		MACH 1110
MACH 1112: Machine Math I (early 8 weeks)	3	D-		F		
MACH 1120: Machine Tool Lab II (late 8 weeks)	3	D-		F		MACH 1121
MACH 1121: Machine Tool Theory II (late 8 weeks)	2	D-		F		MACH 1120
MACH 1123: Blueprint Reading (late 8 weeks)	1	D-		F		
Total	17					
Semester Two						
GE Objective 3: Mathematical Ways of Knowing	3	D-	GE	F, S, Su		
MACH 1115: Applied Machining Geometry (early 8 weeks)	2	D-		S	MACH 1112	
MACH 2221: CAD and CAM Theory I (early 8 weeks)	3	D-		S		MACH 2220
MACH 1131: CNC Mill Setup (early 8 weeks)	2	D-		S	MACH 1120	
MACH 1145: Geometric Dimensioning and Tolerancing I (early 8 weeks)	1	D-		S	MACH 1123	
MACH 1135: Applied Machining Trigonometry (late 8 weeks)	2	D-		S	MACH 1115	
MACH 1141: CNC Lathe Setup (late 8 weeks)	2	D-		S	MACH 1110	
MACH 2220: CAD and CAM Applications I (late 8 weeks)	3	D-		S		MACH 2221
MACH 2245: Geometric Dimensioning and Tolerancing II (late 8 weeks)	1	D-		S	MACH 1145	
Total	19					
Semester Three						
GE Objective 6: Social & Behavioral Ways of Knowing	3	D-	GE	F, S, Su		
TGE 1158: Employment Strategies	2	D-		D		
MACH 2270: CNC Programming Practices I (early 8 weeks)	6	D-		F		
MACH 2271: CNC Theory/Programming I (early 8 weeks)	3	D-		F		
MACH 2272: CNC Math I (early 8 weeks)	3	D-		F	MACH 1135	
MACH 2275: CAD and CAM Theory II (late 8 weeks)	2	D-		F	MACH 2220, MACH 2221	
MACH 2280: CAD and CAM Applications II (late 8 weeks)	4	D-		F	MACH 2220	MACH 2275
Total	23					
Semester Four						
GE Objective 2: COMM 1101 Fundamentals of Oral Communication	3	D-	GE	F, S, Su		
GE Objective 5: CHEM, GEOL, or PHYS (theory & lab)	4	D-	GE	S		
MACH 2281: CNC Programming Theory II (early 8 weeks)	1	D-		S	MACH 2271	MACH 2290
MACH 2290: CNC Machining Practice II (early 8 weeks)	3	D-		S	MACH 2270	MACH 2281
MACH 2285: CAD and CAM Theory III (late 8 weeks)	2	D-		S	MACH 2275	MACH 2291
MACH 2291: CAD and CAM Applications III (late 8 weeks)	4	D-		S	MACH 2280	MACH 2285
Total	17					

*GE=General Education Objective, UU=Upper Division University, UM= Upper Division Major
**See Course Schedule section of Course Policies page in the e-catalog (or input F, S, Su, etc.)

2023-2024 Major Requirements	CR	GENERAL EDUCATION OBJECTIVES Satisfy Objectives 1 and 2		16 cr. min
MAJOR REQUIREMENTS	**60**	1. Written English (3 cr. min)	ENGL 1101	3
MACH 1110: Machine Tool Lab I	3			
MACH 1111: Machine Tool Theory I	2	2. Spoken English (3 cr. min)	COMM 1101	3
MACH 1112: Machine Math I	3	3. Mathematics (3 cr. min)	Any	3
MACH 1115: Applied Machining Geometry	2	4. Humanities, Fine Arts, Foreign Lang.		
MACH 1120: Machine Tool Lab II	3			
MACH 1121: Machine Tool Theory II	2			
MACH 1123: Blueprint Reading	1	5. Natural Sciences		
MACH 1131: CNC Mill Setup	2	GEOL, CHEM, or PHYS with Lab		4
MACH 1135: Applied Machining Trigonometry	2			
MACH 1141: CNC Lathe Setup	2			
MACH 1145: Geometric Dimensioning and Tolerancing I	1	6. Behavioral and Social Science		
MACH 2220: CAD and CAM Applications I	3	Any		3
MACH 2221: CAD and CAM Theory I	3			
MACH 2245: Geometric Dimensioning and Tolerancing II	1	One Course from EITHER Objective 7 OR 8		
MACH 2270: CNC Programming Practices I	6	7. Critical Thinking		
MACH 2271: CNC Theory/Programming I	3	8. Information Literacy		
MACH 2272: CNC Math I	3	9. Cultural Diversity		
MACH 2275: CAD and CAM Theory II	2			
MACH 2280: CAD and CAM Applications II	4	General Education Elective to reach 36 cr. min. **(if necessary)**		
MACH 2281: CNC Programming Theory II	1			
MACH 2285: CAD and CAM Theory III	2	**Total GE**		**16**
MACH 2290: CNC Machining Practice II	3	Undergraduate Catalog and GE Objectives by Catalog Year		
MACH 2291: CAD and CAM Applications III	4	*http://coursecat.isu.edu/undergraduate/programs/*		
TGE 1158: Employment Strategies	2			
Physical Science Course/lab (GEOL, CHEM, PHYS)(Counted in GE OBJ 5)		**MAP Credit Summary**		**CR**
COMM 1101 Fundamentals of comm (Counted in GE OBJ 2)		Major		60
		General Education		16
		Upper Division Free Electives to reach 36 credits		0
		Free Electives to reach 120 credits		0
		TOTAL		76
		Graduation Requirement Minimum Credit Checklist		**Confirmed**
		Minimum 36 cr. General Education Objectives (15 cr. AAS)		**X**
		Minimum 15 cr. Upper Division in Major (0 cr. Associate)		
		Minimum 36 cr. Upper Division Overall (0 cr. Associate)		
		Minimum of 120 cr. Total (60 cr. Associate)		**X**
Advising Notes		*MAP Completion Status (for internal use only)*		
			Date	
		CAA or COT:	MLH 07/14/2023	
		Complete College American Momentum Year		
		Math and English course in first year-Specific GE MATH course identified		
		9 credits in the Major area in first year		
		15 credits each semester (or 30 in academic year)		
		Milestone courses		

Form Revised 9.10.2019