Idaho State University

Catalog Year 2026-2027
AAS, Semiconductor Manufacturing 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						
ESET 1140: Applied Technical Intermediate Algebra **OR** MATH 1143: Precalculus I: Algebra AND MATH 1144: Precalculus II: Trigonometry **OR** MATH 1147: Precalculus	5	C- D- D- D-		F, S, D	Minimum score of 30 on ALEKS or equivalent Appropriate placement score Appropriate placement score Appropriate placement score	
SMT 1118: Semiconductor Manufacturing Technician I	2	C-		F, S, Su		SMT 1118L
SMT 1118L: Semiconductor Manufacturing Technician I Lab	1	C-		F, S, Su		SMT 1118
SMT 1121: Basic Electricity and Electronics	4	C-		F, S, Su	Minimum score of 30 on ALEKS or equivalent	SMT 1121L
SMT 1121L: Basic Electricity Lab	3	C-		F, S, Su		SMT 1121
SMT 1123: Mechanical Power Transmission I	2	C-		F, S, Su	Permission of instructor	SMT 1123L
SMT 1123L: Mechanical Power Transmission Laboratory I	2	C-		F, S, Su	Permission of instructor	SMT 1123
Total	19					
Semester Two						
SMT 1101: Clean Room Operations and Lab	2	C-		F, S, Su		
SMT 1117: Introduction to Industrial Thermal Systems	2	C-		F, S, Su		SMT 1117L
SMT 1117L: Introduction to Industrial Thermal Systems Lab	1	C-		F, S, Su		SMT 1117
SMT 1119: Semiconductor Manufacturing Technician II	2	C-		F, S, Su		SMT 1119L
SMT 1119L: Semiconductor Manufacturing Technician II Lab	1	C-		F, S, Su		SMT 1119
SMT 1122: Electrical Systems and Motor Control Theory	3	C-		F, S, Su	SMT 1121/L or permission of instructor	SMT 1122L
SMT 1122L: Electrical Systems and Motor Control Theory Laboratory	1	C-		F, S, Su	SMT 1121/L or permission of instructor	SMT 1122
SMT 1127: Mechanical Power Transmission II	2	C-		F, S, Su		SMT 1127L
SMT 1127L: Mechanical Power Transmission Laboratory II	2	C-		F, S, Su		SMT 1127
SMT 1162: Industrial Safety and Regulations	2	C-		F, S, Su		
Total	18					
Semester Three						
GE Objective 1: Any	3	D-	GE			
GE Objective 2: Any	3	D-	GE			
GE Objective 3: Any	3	D-	GE			
SMT 1184: Pneumatic and Vacuum Systems	2	C-		F, S, Su		SMT 1184L
SMT 1184L: Pneumatic and Vacuum Systems Lab	1	C-		F, S, Su		SMT 1184
SMT 2203: Nanofabrication	3	C-		F, S, Su		
SMT 2242: Practical Process Measurements and Control	2	C-		F, S, Su	SMT 1122 or permission of instructor	
Total	17					
Semester Four						
GE Objective 6: Any	3	D-	GE			
Any unfulfilled objective	3	D-	GE			
SMT 2201: Automated Control Systems	2	C-		F, S, Su		SMT 2201L
SMT 2201L: Automated Control Systems Lab	1	C-		F, S, Su		SMT 2201
SMT 2202: Radio Frequency Plasma	3	C-		F, S, Su		
Total	12					

*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.)

2026-2027 Major Requirements	CR
MAJOR REQUIREMENTS	**51**
ESET 1140: Applied Technical Intermediate Algebra **OR** MATH 1143: Precalculus I: Algebra AND MATH 1144: Precalculus II: Trigonometry **OR** MATH 1147: Precalculus	5
SMT 1101: Clean Room Operations and Lab	2
SMT 1117: Introduction to Industrial Thermal Systems	2
SMT 1117L: Introduction to Industrial Thermal Systems Lab	1
SMT 1118: Semiconductor Manufacturing Technician I	2
SMT 1118L: Semiconductor Manufacturing Technician I Lab	1
SMT 1119: Semiconductor Manufacturing Technician II	2
SMT 1119L: Semiconductor Manufacturing Technician II Lab	1
SMT 1121: Basic Electricity and Electronics	4
SMT 1121L: Basic Electricity Lab	3
SMT 1122: Electrical Systems and Motor Control Theory	3
SMT 1122L: Electrical Systems and Motor Control Theory Laboratory	1
SMT 1123: Mechanical Power Transmission I	2
SMT 1123L: Mechanical Power Transmission Laboratory I	2
SMT 1127: Mechanical Power Transmission II	2
SMT 1127L: Mechanical Power Transmission Laboratory II	2
SMT 1162: Industrial Safety and Regulations	2
SMT 1184: Pneumatic and Vacuum Systems	2
SMT 1184L: Pneumatic and Vacuum Systems Lab	1
SMT 2201: Automated Control Systems	2
SMT 2201L: Automated Control Systems Lab	1
SMT 2202: Radio Frequency Plasma	3
SMT 2203: Nanofabrication	3
SMT 2242: Practical Process Measurements and Control	2

GENERAL EDUCATION OBJECTIVES **Satisfy Objectives 1,2,3,4,5,6 (7 or 8) and 9**		**15 cr. min**
1. Written English	Any	3
2. Spoken English	Any	3
3. Mathematics	Any	3
4. Humanities, Fine Arts, Foreign Lang.		
5. Natural Sciences		
6. Behavioral and Social Science		
Any		3
One Course from EITHER Objective 7 OR 8		
7. Critical Thinking		
8. Information Literacy		
9. Cultural Diversity		
General Education Elective to reach 36 cr. min.	**(if necessary)**	
Any		3
Total GE		**15**

Undergraduate Catalog and GE Objectives by Catalog Year
http://coursecat.isu.edu/undergraduate/programs/

MAP Credit Summary	**CR**
Major	51
General Education	15
Upper Division Free Electives to reach 36 credits	0
Free Electives to reach 120 credits	0
TOTAL	66

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)	**X**
Minimum 36 cr. Upper Division Overall (0 cr. Associate)	**X**
Minimum of 120 cr. Total (60 cr. Associate)	**X**

Advising Notes

MAP Completion Status (for internal use only)	
	Date
CAA or COT:	GR 06/17/2026

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 2.14.2023