

AGRICULTURAL SYSTEMS MANAGEMENT

Advisor Approved Electives

The selection of advisor approved electives is an important step in ensuring your coursework at Cal Poly prepares you for your educational and career objectives. The following are suggested advisor approved electives in common interest areas. Work with your academic advisor to select which courses you will take to fulfill the ASM major requirements. If you are planning on declaring a minor (Wine and Viticulture and Geographical Information Systems for Agriculture, etc.), you may be able to count some of the minor courses as electives.

The composition of advisor approved electives required are dependent on the catalog you choose to graduate under. Below are the specific advisor approved elective requirements.

The form to designate your Advisor Approved Electives is found on the BRAE Dept. web site www.brae.calpoly.edu in the student advising section.

Catalog Years	# of Units	Restrictions
2000-2001	15	7 units upper division
2001-2003	19	11 units upper division Must take BRAE 340
2003-2005	15	7 units upper division
2005-2007	16	7 units upper division 8 units can be AGB coursework to complete AGB minor
2007-2009	16	7 units upper division 8 units can be AGB coursework to complete AGB minor

Suggested Coursework by Area of Interest

Water/Irrigation

BRAE 236	Principles of Irrigation	4
BRAE 237/239	Engr. Surveying	2/4
BRAE 405	Chemigation	1
BRAE 435	Drainage	3
BRAE 438	Drip/Micro Irrigation	4
BRAE 439	Vineyard Water Management	4
BRAE 440	Agricultural Irrigation Systems	4
BRAE 532	Water Wells and Pumps	4
FNR 408	Water Resource Law and Policy	3

Mechanical Systems

BRAE 152	3-D Solids Modeling	1
BRAE 302	Servo Hydraulics	4
BRAE 335	Internal Combustion Engines	4
BRAE 343	Mechanical Systems Analysis	4
BRAE 344	Fabrication Systems	4
IME 141	Manuf. Processes: Net Shape	1
IME 142	Manuf. Processes: Mats Joining	2
IME 143	Manuf. Processes: Mats Removal	2
IME 157	Electronics Manufacturing	3
IT 327	Plastics Technology	4
IT 341	Plastic Processes and Application	4

Agricultural Waste Management

BRAE 435	Drainage	3
BRAE 448	Bioconversion	3
CHEM 212	Intro to Organic Chemistry	5
ENVE 330	Environmental Quality Control	4
FSN 270	Food & Wine Plant Sanitation	4
SS 121	Fertilizers & Plant Nutrition	4

Geographic Information Systems

BRAE 239	Engineering Surveying	4
BRAE 345	Aerial Photo. & Remote Sensing	3
BRAE 447	Advanced Survey with GIS Apl.	4
CRSC 244	Precision Farming	4
FNR 306	Nat Resource Ecology/Habitat.	4
FNR 318	Applications in GIS	3
FNR 416	Env. Impact Analysis & Mgmt.	4

Processing and Manufacturing

CM 325	Construction Mgmt. Practices	3
FSN 230	Elements of Food Processing	4
FSN 354	Packaging Funct. in Food Proc.	3
IME 141	Manuf. Processes: Net Shape	1
IME 142	Manuf. Processes: Mats Joining	2
IME 143	Manuf. Processes: Mats Removal	2
IME 144	Intro. To Design and Manuf.	4
IME 319	Human Factors Engineering	3
IME 320	Human Factors and Technology	4
IT 260	Manufacturing Processes	4
IT 327	Plastics Technology	4
IT 330	Fundamentals of Packaging	4

Food Processing

ASCI 211	Meat Science	4
ASCI 384	Processed Meat Products	4
ASCI 415	HACCP for Meat/Poultry Ops.	3
BRAE 448	Bioconversion	3
FSN 125	Introduction to Food Science	5
FSN 204	Food Processing Operations	4
FSN 230	Elements of Food Processing	4
FSN 270	Food and Wine Plant Sanitation	4
FSN 275	Prin. of Safety & Hazard Analysis	4
FSN 323	Statistical Quality Control	3
FSN 330	Intro to Principles of Food Engr.	4
FSN 334	Food Packaging	3
FSN 341	Wines and Fermented Foods	3
FSN 354	Packaging Function in Food Proc.	3
FSN 444	Engr. Concepts in Food Pro.	4

Plant Production

CRSC/FRSC/VGSC 230		
	Agr. Crop/CA Fruit/Vegetable Science	4
CRSC 244	Precision Faming	4
CRCS/FRSC/VGSC 300-400	Restricted Elec.	4
CRSC 445	Cropping Systems	4
PPSC 311	Agricultural Entomology	4
SS 221	Fertilizers & Plant Nutrition	4

Teaching Agriculture

AGED 202	Intro to Agr Education & Comm.	2
AGED 330	FFA & Supervised Ag Programs	6
ASCI 231	General Animal Science	3
CRSC/FRSC/VGSC 230		
	Agronomic Crop/Fruit/Vegetable Science	4
EDUC 460	Curr. & Instruction in Second Schools	3
EDUC 462	Org. & Mgmt of Instructional	
	Enviro. For Diverse Learners in Sec Education	3
EHS 230	Environmental Horticulture	4

Livestock Production

Course taken by all students in this area:

ASCI 112	Principles of Animal Science	4
	Choose 1 course from:	

ASCI 220	Intro. Animal Nutrition & Feeding	4
ASCI 221	Intro to Beef Production	4
ASCI 222	Systems of Swine Production	4
ASCI 223	Systems of Sheep Production	4
ASCI 224	Equine Science	4
PM 225	Intro to Poultry Management	4

Choose 2 or more courses from:

ASCI 311	Adv. Beef Cattle System Mgmt.	4
ASCI 329	Principles of Range Management	3
ASCI 333	Equine Reproduction	5
PM 305	Game Bird Propagation/Mgmt.	4
PM 325	Egg Prod, Processing, & Distr.	4
PM 330	Poultry Production Management	4
PM 345	Poultry Business Management	4