

ENTOMOLOGY - BS

Program Requirements

First Year

Fall		Semester Credit Hours
BIOL 111	Introductory Biology I	4
CHEM 119	Fundamentals of Chemistry I	4
ENTO 101 or AGLS 101	Introduction to Academic Success in Entomology or Modern Agricultural Systems and Renewable Natural Resources	1
ENTO 201	General Entomology	3
MATH 140	Mathematics for Business and Social Sciences ¹	3
Semester Credit Hours		15

Spring

BIOL 112	Introductory Biology II	4
CHEM 120	Fundamentals of Chemistry II	4
ENTO 102	Continuing Academic Success in Entomology	1
MATH 142	Business Calculus ²	3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
Semester Credit Hours		15

Second Year

Fall		Semester Credit Hours
CHEM 222	Elements of Organic and Biological Chemistry ³	3
ENTO 482	Occupational and Professional Development	2
POLS 206	American National Government	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ⁴		3
Social and behavioral sciences (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#social-behavioral-sciences) ⁴		3
General elective		1
Semester Credit Hours		15

Spring

POLS 207	State and Local Government	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ⁴		3
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication)		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) ⁴		3

Technical elective ⁵	3
Semester Credit Hours	15

Third Year

Fall

ENTO 306	Insect Structure and Function	4
Technical electives ⁵		7
General elective		3

Semester Credit Hours

14

Spring

ENTO 301	Biodiversity and Biology of Insects	4
ENTO 424	Insect Ecology	3
ENTO 481	Seminar	1
GENE 301 & GENE 312	Comprehensive Genetics and Comprehensive Genetics Laboratory	4
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) ⁴		3

Semester Credit Hours

15

Fourth Year

Fall

ENTO 428	Insect Biotechnology	3
ENTO 429	Insect Biotechnology Laboratory	1
Technical electives ⁵		7
General elective		5

Semester Credit Hours

16

Spring

ENTO 435	Case Studies in Problem Solving	3
ENTO 484 or ENTO 491	Professional Internship or Research	2
Technical electives ⁵		6
General electives		4

Semester Credit Hours

15

Total Semester Credit Hours

120

¹ MATH 150, and MATH 152 will be accepted in lieu of MATH 140.

² MATH 151 and PHIL 240 will be accepted in lieu of MATH 142.

³ CHEM 227 and CHEM 257 will be accepted in lieu of CHEM 222.

⁴ To be selected in consultation with student's academic advisor in the department. Three hours of international and cultural diversity (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/international-cultural-diversity-requirements/>) electives and three hours of cultural discourse (<http://catalog.tamu.edu/undergraduate/general-information/degree-information/cultural-discourse-requirements/>) are required for graduation; these courses may fulfill other degree requirements as well. See the list of approved courses.

⁵ Technical electives must be selected in consultation with the student's advisor or from the current list of approved electives published by the department. See Technical Electives table.

Additional Requirements for a Baccalaureate Degree

- Foreign Language (two years of the same language in high school or one year/two semester sequence in college)

- Writing Intensive Courses (two courses designated W in major or one W and one C course in major)
- International and Cultural Diversity Courses (three credit hours)
- Cultural Discourse Course (three credit hours)

Technical Electives

Code	Title	Semester Credit Hours
ACCT 209	Survey of Accounting Principles	3
AGEC 314	Marketing Agricultural and Food Products	3
AGEC 330	Financial Management in Agriculture	3
AGEC 340	Agribusiness Management	3
AGSM 335	Water and Soil Management	3
AGSM 337	Technology for Environmental and Natural Resource Engineering	3
ALED 440	Leading Change	3
ANSC 107	General Animal Science	3
ANSC 108	General Animal Science Laboratory	1
ANSC 303	Principles of Animal Nutrition	3
ANSC 305	Animal Breeding	3
ANSC 307	Meats	3
ANSC 318	Animal Feeds and Feeding	3
ANSC 320	Animal Nutrition and Feeding	3
ANSC 326/ FSTC 326	Food Bacteriology	3
ANSC 327/ FSTC 327	Food Bacteriology Lab	1
BESC 201	Introduction to Bioenvironmental Sciences	3
BESC 401	Bioenvironmental Microbiology	3
BESC 402	Microbial Processes in Bioremediation	3
BICH 303	Elements of Biological Chemistry	3
BICH 410	Comprehensive Biochemistry I	3
BICH 411	Comprehensive Biochemistry II	3
BICH 431/ GENE 431	Molecular Genetics	3
BIOL 206	Introductory Microbiology	4
BIOL 213	Molecular Cell Biology	3
BIOL 319	Integrated Human Anatomy and Physiology I	4
BIOL 320	Integrated Human Anatomy and Physiology II	4
BIOL 351	Fundamentals of Microbiology	4
BIOL 357	Ecology	3
BIOL 413	Cell Biology	3
BIOL 456	Medical Microbiology	3
CHEM 228	Organic Chemistry II	3
CHEM 238	Organic Chemistry Laboratory	1
CHEM 258	Organic Chemistry II - Reactivity and Applications	4
COMM 203	Public Speaking	3
ECCB 205	Fundamentals of Ecology	3
ENTO 208-299 (http://catalog.tamu.edu/undergraduate/course-descriptions/ento/)		
ENTO 320	Honey Bee Biology	3
ENTO 322	Insects and Human Society	0,3
ENTO 401	Principles of Integrated Pest Management	3
ENTO 402	Insects In Agriculture	3
ENTO 403	Urban Entomology	3
ENTO 423	Medical Entomology	2
ENTO 431/ FIVS 431	The Science of Forensic Entomology	3
ENTO 432/ FIVS 432	Applied Forensic Entomology	1
ENTO 441	Engineering Vector Populations	3
ENTO 442	Mosquito - A History of Humankind's Struggle for Survival with the Deadliest Animal on the Planet	3
ENTO 485	Directed Studies	0-4
ENTO 489	Special Topics in...	1-4
GENE 405/ BIMS 405	Mammalian Genetics	3
GENE 406/ BIOL 406	Bacterial Genetics	3
GENE 412	Population, Quantitative and Ecological Genetics	3
HORT 201	Horticultural Science and Practices	3
HORT 301	Garden Science	3
HORT 308	Plants for Sustainable Landscapes	3
HORT 313	Introduction to Plant Physiology	3
HORT 315	Issues in Horticulture	3
HLTH 331	Community Health	3
HLTH 334	Women's Health	3
HLTH 335	Human Diseases	3
HLTH 342/ PHLT 342	Human Sexuality	3
HLTH 353/ PHLT 353	Drugs and Society	3
HLTH 354/ PHLT 354	Medical Terminology for the Health Professions	3
HLTH 403/ PHLT 403	Consumer Health	3
HLTH 405/ PHLT 405	Rural Health	3
HLTH 407	Global Health	3
HLTH 429	Environmental Health	3
PHLT 301	Public Health Concepts	1
PHLT 302	Foundations of Public Health	3
PHLT 303	Social Context of Population Health	3
PHLT 304	Biological Basis of Public Health Diseases & Disorders	3
PHLT 305	Epidemiology in Public Health	3
PHLT 306	Border Health	3
PHLT 307	Public Health in the Global Context	3

PHLT 308	Comparative Global Health Systems	3	SCSC 455	Environmental Soil and Water Science	3
PHLT 309	Population Health Promotion	3	STAT 302	Statistical Methods	3
PHLT 310	Public Health Writing	1	VTPB 405	Biomedical Microbiology	4
PHLT 311	Narrative Approach to Public Health	1	VTPB 409	Introduction to Immunology	3
PHLT 313	Health Care and Public Health System	3	VTPB 487	Biomedical Parasitology	4
PHLT 314	Public Health Data Management and Assessment I	2			
PHLT 315	Public Health Data Management and Assessment II	2			
PHLT 330	The Environment and Public Health	3			
PHLT 331	Occupational Safety and Health I	3			
PHLT 332	Occupational Safety and Health II	3			
PHLT 333	Accident Investigation	3			
PHLT 334	Fire Safety and Workplace Hazards	3			
PHLT 335	Hazardous Materials	3			
PHLT 370	Broad Street Learning Community II	3			
PHLT 410	Public Health Communication	3			
PHLT 411	Project Management in Public Health	3			
PHLT 412	Health Advocacy and Policy	3			
PHLT 413	Public Health Informatics	3			
PHLT 414	Applications of Epidemiology in Public Health	3			
PHLT 415	Emergency Management in Public Health	3			
PHLT 416	Public Health Leadership and Ethics	3			
PHLT 426/ MKTG 443	The Business of Healthcare	3			
PHLT 432	Human Factors and Ergonomic Health and Safety	3			
PHLT 433	Industrial Inspections and Audit Techniques	3			
PHLT 434	Project Cost Benefit and Economics	3			
PHLT 436	Infectious Disease in the Developing World: Risks, Challenges, and Solutions	3			
PHLT 441	Strategies for Population Health Improvement	3			
PHLT 445	Applications of Public Health	3			
PHLT 470	Global Public Health Systems and Practice Experiences	1-3			
PHLT 485	Directed Studies	1-4			
PHLT 489	Special Topics In...	1-4			
PHYS 201	College Physics	4			
PHYS 202	College Physics	4			
PLPA 301	Plant Pathology	3			
PLPA 303	Plant Pathology Laboratory	1			
SCSC 105	World Food and Fiber Crops	3			
SCSC 301	Soil Science	4			
SCSC 304	Plant Breeding and Genetics	3			
SCSC 405	Soil and Water Microbiology	3			
SCSC 422	Soil Fertility and Plant Nutrient Management	3			