

# College of Agriculture, Science and Engineering

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The College of Agriculture, Science and Engineering is comprised of the Department of Agricultural Sciences, the Department of Engineering and Computer Science, the Department of Life, Earth

and Environmental Sciences, and the Department of Mathematics, Chemistry and Physics. In addition to providing expertise to the University's general education curriculum via faculty participation in teaching courses in analytical reasoning, the college also offers, by its various components, a variety of undergraduate and graduate programs and majors. All are directed toward preparing individuals who will be competent and competitive in scientific, technical, educational and professional occupations.

## Department of Agricultural Sciences

**Dr. Donald R. Topliff**, department head

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Faculty: Almas, Baker, Brown, Clark, Colette, DeOtte, Herrington, Jasoni, Kieth, Lawrence, Loneragan, Lust, MacDonald, Moss, Parker, Pendleton, Pipkin, C. Robinson, R. Robinson, Schuster, Stewart, Sweeten, Topliff, Williams

The Department of Agricultural Sciences provides students the opportunity for personal development and preparation for careers in agriculture and related industries. One out of every five jobs in the United States is related to production, processing, distribution, or consumption of feed grains, food and fiber. Professions in the agricultural sector are available to trained personnel. Students may pursue a bachelor of science degree in agriculture or in agribusiness. The agriculture degree program includes majors in agricultural business and economics, teacher certification in agriculture, animal science, integrated pest management, and plant, soil and environmental science. The agribusiness degree program includes majors in agribusiness, and equine industry and business. A preprofessional program leading to veterinary school admission also is available. Possibilities for post-baccalaureate study include a master of science in agriculture degree with thesis and non-thesis options, and a Ph.D. degree in systems agriculture.

The excellent faculty in agriculture provides a rigorous and comprehensive approach to understanding agriculture and related businesses. The faculty's diversity of experience and training provides the student an educational opportunity rarely found at a regional university. In addition to classrooms and laboratories, the Department of Agricultural Sciences utilizes the 2,500-acre Nance Ranch, Feedyard, Feedmill, Horse Center, federally inspected meat science laboratory, and greenhouse complex to provide hands-on experience for students.

### University Core Curriculum Requirements

Refer to the "University Core Curriculum" section of this catalog.

Discipline	Course Prefix
Agriculture Business and Economics .....	AGBE
Agriculture .....	AGRI
Animal Science .....	ANSC
Integrated Pest Management .....	IPM
Plant, Soil and Environmental Science .....	PSES

NOTE: See the "Academic Courses and Abbreviations" and "Course Descriptions" sections of this catalog for a complete list of courses offered by the University.

# Department of Agricultural Sciences

## Bachelor of Science (B.S.) Degree

### Majors in Agribusiness

- Agribusiness
- Equine Industry and Business

The bachelor of science degree in agribusiness is a cooperative program of the Department of Agricultural Sciences and the College of Business. The degree program is administered by the Department of Agricultural Sciences. A student must complete a minimum of 120 semester credit hours and maintain at least a 2.0 grade point average (GPA) for all courses at WTAMU counted toward the degree; at least a 2.0 GPA for all courses in the department and agribusiness cores, 2.0 GPA in major requirements and 2.0 GPA in the major subject. At least 36 semester hours of credit must be earned from upper-level (3000- and 4000-level) courses. Course requirements include core curriculum requirements, an agricultural component, a business component, physical education requirements and requirements specified under one of the degree options and totals 120 semester credit hours.

### Major in Agribusiness (Major Code: 515)

Select BIOL 1413 or 1411, CHEM 1405 or 1411, MATH 1324, and ECON 2301 to satisfy core curriculum requirements.

#### Department Core (16 hours)

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

#### Agribusiness Core (33 hours)

- ACCT 2301, 2302.
- BUSI 3312.
- AGBE 3302, 3304, 4316.
- AGRI 3330.
- FIN 3320.
- MGT 3330.
- MKT 3340.
- One course from BUSI 3319, MKT 4340, ECON 4341, 4342, FIN 4323.

#### Major Requirements (25–26 hours)

- AGBE 3320, 4312, 4313, AGBE 4365 or MGT 4315, AGRI 4103, MGT 3335, FIN 4328.
- One course from AGBE 3301, 4301, 4310, 4311.
- One course from ANSC 4320, 4321, 4322, 4324, 4328, 4370, IPM 2313, PSES 3411, 4302.

#### Electives (3–4 hours)

Curriculum Guide (suggested course sequence)			
Major in Agribusiness			
First Year		Second Year	
<b>Semester 1</b> ANSC 1319 .....3 hrs. ENGL 1301 .....3 hrs. SCOM 1315 or 1321 .....3 hrs. POSC 2305 .....3 hrs. MATH 1324 .....3 hrs. IDS 1071 .....1 hr. 16 hrs.	<b>Semester 2</b> PSES 1307 .....3 hrs. ENGL 1302 .....3 hrs. POSC 2306 .....3 hrs. AGBE 2317 .....3 hrs. HIST 1301 .....3 hrs. 15 hrs.	<b>Semester 1</b> BIOL 1411 or 1413 .....4 hrs. ECON 2301 .....3 hrs. ACCT 2301 .....3 hrs. HIST 1302 .....3 hrs. Humanities core .....3 hrs. 16 hrs.	<b>Semester 2</b> AGBE 2317 .....3 hrs. CHEM 1405 or 1411 .....4 hrs. Visual/performing arts core .....3 hrs. ACCT 2302 .....3 hrs. PHED 1111 .....1 hr. 14 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> AGBE 3302 .....3 hrs. AGRI 3330 .....3 hrs. BUSI 3312 .....3 hrs. AGRI/BIOL 3301 .....3 hrs. MKT 3340 .....3 hrs. 15 hrs.	<b>Semester 2</b> AGBE 3304 .....3 hrs. AGRI 3318 .....3 hrs. MGT 3330 .....3 hrs. MKT 4340 .....3 hrs. BUSI 3319, MKT 4340, ECON 4341, 4342 or FIN 4323 .....3 hrs. Elective .....3-4 hrs. 15-16 hrs.	<b>Semester 1</b> AGBE 3301, 4301, 4310 or 4311 .....3 hrs. AGBE 4313 .....3 hrs. AGBE 4316 .....3 hrs. FIN 3320 .....3 hrs. MGT 3335 .....3 hrs. 15 hrs.	<b>Semester 2</b> FIN 4328 .....3 hrs. ANSC 4320, 4332, 4324, 4328, 4370, IPM 2313, PSES 3411, 4302 .....3-4 hrs. AGRI 4103 .....1 hr. AGBE 4365 or MGT 4315 .....3 hrs. AGRI 4103 .....1 hr. 13-14 hrs.

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## Major in Equine Industry and Business (Major Code: 534)

Select BIOL 1413 and CHEM 1405 or 1411, MATH 1314 and AGBE 2317 to satisfy core curriculum requirements.

### Department Core (13–16 hours)\*

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

\*If AGBE 2317 is used to meet University core requirements, department core is 13 hours.

### Business Component (24 hours with a minimum of two AGBE courses)

- ACCT 2301, 2302.
- BUSI 3312.
- One course from AGBE 3302 or MKT 3340.
- One course from AGBE 3301, 3304 or MGT 3330.
- One course from AGBE 4313 or FIN 3320.
- Two courses from AGBE 2375, 3301, 3302, 3304, 4301, 4311, 4312, 4313, 4316, 4328, 4354, or 4365; ACCT 3311, 3331, 3332, 3371, 4315, 4371, 4391; ECON 2301 or 4312; FIN 3320 or 3350; BUSI 3319; MGT 3330, 3332, or 3333; MKT 3340, 3342, 3346, 3350, 4340, 4342 4344, or 4346.

### Agriculture Component (16 hours )

- AGRI 3330, 4103.
- ANSC 3355, 3374, 3375.
- ANSC or BIOL 3340.

### Equine Component (19 hours )

- ANSC 1178, 1274 or 1275, 2374, 2375, 2377, 4370, 4473.

### Electives (6 hours)

Curriculum Guide (suggested course sequence)			
Major in Equine Industry and Business			
First Year		Second Year	
Semester 1	Semester 2	Semester 1	Semester 2
IDS 1071 .....1 hr. BIOL 1314, 1013L .....4 hrs. MATH 1314 or 1324 .....3 hrs. ENGL 1301 .....3 hrs. ANSC/PHED 1178 .....1 hr. ANSC 1319 .....3 hrs. PHED 1111 .....1 hr. 16 hrs.	ENGL 1302 .....3 hrs. CHEM 1411 or 1405 .....4 hrs. HUMA 1315/ ARTS 1303/1304/ MUSI 1372/ THRE 1310 .....3 hrs. PSES 1307 .....3 hrs. ANSC 1274/ Elective .....2 hrs. 15 hrs.	POSC 2305 .....3 hrs. SCOM 1315 or 1321 .....3 hrs. ACCT 2301 .....3 hrs. ANSC 1275/ Elective .....2 hrs. ANSC 2374 .....3 hrs. HIST 1301 .....3 hrs. 17 hrs.	POSC 2306 .....3 hrs. AGBE 2317 .....3 hrs. ACCT 2302 .....3 hrs. ANSC 2375 .....3 hrs. ANSC 2377 .....3 hrs. 15 hrs.
Third Year		Fourth Year	
Semester 1	Semester 2	Semester 1	Semester 2
AGRI/BIOL 3301 .....3 hrs. Business comp. elective .....3 hrs. AGRI 3330 .....3 hrs. ANSC 3340 .....3 hrs. ANSC 3374 .....3 hrs. Elective (ANSC 3240) .....2 hrs. 17 hrs.	HIST 1302 .....3 hrs. Business comp. elective .....3 hrs. ANSC 3355 .....3 hrs. ANSC 3375 .....3 hrs. AGRI 3318 .....3 hrs. 15 hrs.	ENGL 2332/ 2333/2371/ HIST 2372/ PHIL 1301/ SPAN 2312 .....3 hrs. BUSI 3312 .....3 hrs. Business comp. elective .....3 hrs. Business comp. elective .....3 hrs. 12 hrs.	Business comp. elective .....3 hrs. AGRI 4103 .....1 hr. ANSC 4370 .....3 hrs. ANSC 4473 .....4 hrs. Electives .....2 hrs. 13 hrs.

# Department of Agricultural Sciences

## Majors in Agriculture

- Agricultural Business and Economics
- Agriculture—Teacher Certification/Non-Certification
- Animal Science
- Plant, Soil and Environmental Science

Majors in agriculture include University core requirements, department core requirements, agricultural science core requirements, and major requirements specified under each degree option and total 120 semester credit hours (see each degree for specific requirements). Students must maintain at least a 2.0 grade point average (GPA) for all courses at WTAMU counted toward the degree; at least a 2.0 GPA for all courses in the department and agricultural cores, 2.0 GPA in major requirements and 2.0 GPA in the major subject. At least 36 semester hours of credit must be earned from upper-level (3000- and 4000-level) courses. In addition, students in the teacher certification option of the agriculture major must meet professional development standards set by the Department of Education. For specific requirements, see the “Department of Education” section of this catalog.

## Major in Agricultural Business and Economics (Major Code: 522)

Select BIOL 1413 or 1411, CHEM 1405 or 1411, MATH 1314 and ECON 2301 to satisfy core curriculum requirements.

### Department Core (16 hours)

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

### Agricultural Science Core (23 hours)

- AGBE 3301 or 3304, 3302.
- AGRI 3330, 4103.
- ANSC 1329, 3374.
- IPM 2313.
- PSES 3411.

### Major Requirements (33 hours)

- ACCT 2301, 2302.
- 24 credit hours from AGBE 3301 or 3304, 3320, 4301 or 4311, 4310, 4312, 4313, 4316, 4328 or 4354, 4365.
- BUSI 3312.

### Electives (6 hours)

Curriculum Guide (Suggested Course Sequence)			
Major in Agricultural Business and Economics			
First Year		Second Year	
<b>Semester 1</b> ANSC 1319 .....3 hrs. ENGL 1301 .....3 hrs. SCOM 1315 .....3 hrs. POSC 2305 .....3 hrs. MATH 1314 .....3 hrs. IDS 1071 .....1 hr. 16 hrs.	<b>Semester 2</b> PSES 1307 .....3 hrs. ENGL 1302 .....3 hrs. POSC 2306 .....3 hrs. ACCT 2301 .....3 hrs. Humanities core .....3 hrs. PHED 1111 .....1 hr. 16 hrs.	<b>Semester 1</b> ANSC 1329 .....3 hrs. BIOL 1411 or 1413 .....4 hrs. ECON 2301 .....3 hrs. HIST 1301 .....3 hrs. Elective .....3 hrs. 16 hrs.	<b>Semester 2</b> AGBE 2317 .....3 hrs. CHEM 1411 .....4 hrs. Visual/Performing arts core .....3 hrs. ACCT 2302 .....3 hrs. HIST 1302 .....3 hrs. 16 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> AGBE 3301 .....3 hrs. AGBE 3302 .....3 hrs. AGRI 3318 .....3 hrs. AGRI 3330 .....3 hrs. BUSI 3312 .....3 hrs. 15 hrs.	<b>Semester 2</b> AGBE 3304 .....3 hrs. AGBE 4328 .....3 hrs. AGRI or BIOL 3301 .....3 hrs. AGBE 3320 .....3 hrs. ANSC 3374 .....3 hrs. 15 hrs.	<b>Semester 1</b> AGBE 4301 or 4311 .....3 hrs. AGBE 4313 .....3 hrs. AGBE 4316 .....3 hrs. AGBE 4365 .....3 hrs. AGRI 4103 .....1 hr. 13 hrs.	<b>Semester 2</b> AGBE 4310 .....3 hrs. AGBE 4312 .....3 hrs. PSES 3411 .....4 hrs. Elective .....3 hrs. 13 hrs.

# Department of Agricultural Sciences

## Major in Agriculture—Teacher Certification (Major Code: 497)

Select BIOL 1411 or 1413, CHEM 1405 or 1411, MATH 1314 and AGBE 2317 to satisfy core curriculum requirements.

### Educational Component (24 hours)

- AGRI 2371, 4305.
- EDPD 3340, 4340.
- EDSE 4321, 4340, 4341.
- EDRD 4386.

### Department Core (13–16 hours)\*

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

\*If AGBE 2317 is used to meet University core requirements, department core is 13 hours.

### Major Requirements (29 hours)

- AGRI 2372, 3303, 3304, 3306, 4103, 4302.
- AGBE 3301 or 3302 or 3304.
- ANSC 3374.
- PSES 1301, 3411.

### Miscellaneous Requirements (6 hours)

- EPSY 3341, 3350.

### Agricultural Electives (6 hours)

- Three hours must be a 3000- or 4000-level course.

Curriculum Guide (suggested course sequence)			
Major in Agriculture—Teacher Certification			
First Year		Second Year	
Semester 1	Semester 2	Semester 1	Semester 2
IDS 1071 .....1 hr. PSES 1307 .....3 hrs. MATH 1314 .....3 hrs. ENGL 1301 .....3 hrs. Visual/Performing arts core .....3 hrs. POSC 2305 .....3 hrs. 16 hrs.	ENGL 1302 .....3 hrs. SCOM 1315 or 1321 .....3 hrs. PHED 1111 .....1 hr. AGRI 2371 .....3 hrs. ANSI 1319 .....3 hrs. POSC 2306 .....3 hrs. 16 hrs.	PSES 1301 .....3 hrs. AGRI 2371 .....3 hrs. AGRI 2372 .....3 hrs. HIST 1301 .....3 hrs. BIOL 1411 or 1413 .....4 hrs. 16 hrs.	CHEM 1405 .....4 hrs. HIST 1302 .....3 hrs. ENGL 2371 .....3 hrs. AGRI/BIOL 3301 .....3 hrs. 13 hrs.
Third Year		Fourth Year	
Semester 1	Semester 2	Semester 1	Semester 2
PSES 3411 .....4 hrs. AGRI 3303 .....3 hrs. AGRI 3304 .....3 hrs. EDPD 3340 .....3 hrs. ANSC 3374 .....3 hrs. 16 hrs.	AGRI 3318 .....3 hrs. AGRI 3306 .....3 hrs. EDSE 4320 .....3 hrs. EPSY 3350 .....3 hrs. EDRD 4386 .....3 hrs. 15 hrs.	AGBE 3301, 3302 or 3304...3 hrs. EPSY 3341 .....3 hrs. AGRI 4302 .....3 hrs. AGRI 4305 .....3 hrs. AGRI 4103 .....1 hrs. 16 hrs.	EDPD 4340 .....3 hrs. EDSE 4340 .....3 hrs. EDSE 4341 .....3 hrs. Adv. ag elective .....3 hrs. 12 hrs.

## Major in Agriculture—Non-certification Option (Major Code: 501)

Select BIOL 1411, CHEM 1405 or 1411, MATH 1314 and AGBE 2317 to satisfy core curriculum requirements.

### Educational Component (6 hours)

- AGRI 2371, 3303.

### Department Core (13–16 hours)\*

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

\*If AGBE 2317 is used to meet University core requirements, department core is 13 hours.

### Major Requirements (35 hours)

- AGRI 2372, 3304, 3306, 4103, 4302.
- ANSC 3374, 2376.
- PSES 1301, 3411.
- AGBE 3301 or 3302 or 3304.
- Six hours internship.

### Agricultural Electives (18 hours)

- At least nine semester credit hours from any 3000- or 4000-level course from AGRI, AGBE, ANSC, IPM or PSES.

### Free Electives (6 hours)

Curriculum Guide (suggested course sequence)			
Major in Agriculture—Non-Certification			
First Year		Second Year	
Semester 1	Semester 2	Semester 1	Semester 2
PSES 1307 .....3 hrs. IDS 1071 .....1 hr. ENGL 1301 .....3 hrs. MATH 1314 .....3 hrs. Visual/Performing arts core .....3 hrs. POSC 2305 .....3 hrs. 16 hrs.	ANSC 1319 .....3 hrs. SCOM 1315 or 1321 .....3 hrs. ENGL 1302 .....3 hrs. PHED 1111 .....1 hr. POSC 2306 .....3 hrs. 13 hrs.	PSES 1301 .....3 hrs. HIST 1301 .....3 hrs. AGRI 2371 .....3 hrs. AGRI 2372 .....3 hrs. BIOL 1411 or 1413 .....4 hrs. 16 hrs.	AGBE 2317 .....3 hrs. CHEM 1405 or 1411 .....4 hrs. HIST 1302 .....3 hrs. ANSC 2376 .....3 hrs. 13 hrs.
Third Year		Fourth Year	
Semester 1	Semester 2	Semester 1	Semester 2
AGRI/BIOL 3301 .....3 hrs. PSES 3411 .....4 hrs. ANSC 3374 .....3 hrs. AGRI 3304 .....3 hrs. Ag elective .....3 hrs. 16 hrs.	AGRI 3318 .....3 hrs. AGRI 3306 .....3 hrs. Humanities core .....3 hrs. EDT 3343 .....3 hrs. Ag elective .....3 hrs. Elective .....3 hrs. 15 hrs.	AGBE 3301, 3302 or 3304...3 hrs. Ag elective .....3 hrs. Ag elective .....3 hrs. Adv. ag elective .....3 hrs. Adv. ag elective .....3 hrs. 15 hrs.	AGRI 4103 .....1 hr. AGRI 4302 .....3 hrs. Adv. ag elective .....3 hrs. Elective .....3 hrs. Internship .....6 hrs. 16 hrs.

# Department of Agricultural Sciences

## Major in Animal Science (Major Code: 523)

Select BIOL 1413, CHEM 1411 or 1405, MATH 1314 and AGBE 2317 to satisfy core curriculum requirements.

### Department Core (13–16 hours)\*

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

\*If AGBE 2317 is used to meet University core requirements, department core is 13 hours.

### Agricultural Science Core (23 hours)

- AGBE 3301 or 3304, 3302.
- AGRI 3330, 4103.
- ANSC 1329, 3374.
- IPM 2313.
- PSES 3411.

### Major Requirements (35–36 hours)

- CHEM 1412.
- BIOL 2420 or 2572.
- ANSC 2376, 2371, 3317, 3340, 3355, 3375.
- Three courses from ANSC 4320, 4321, 4322, 4324, 4328, 4370. No more than two of the following (4320, 4321, 4322, 4328) may be taken to meet major requirements.

### Electives (6–7 hours)

Curriculum Guide (suggested course sequence)			
Major in Animal Science			
First Year		Second Year	
Semester 1	Semester 2	Semester 1	Semester 2
IDS 1071 .....1 hr. BIOL 1413 .....4 hrs. ENGL 1301 .....3 hrs. MATH 1314 .....3 hrs. ANSC 1319 .....3 hrs. PHED 1111 .....1 hr. 15 hrs.	CHEM 1411/ 1405 .....4 hrs. ANSI 1329 .....3 hrs. PSES 1307 .....3 hrs. HIST 1301 .....3 hrs. ENGL 1302 .....3 hrs. 16 hrs.	ANSC 2376 .....3 hrs. AGBE 2371 .....3 hrs. CHEM 2312 .....3 hrs. POSC 2305 .....3 hrs. Visual/performing arts core .....3 hrs. POSC 2305 .....3 hrs. 15 hrs.	Humanities core .....3 hrs. SCOM 1315/ 1321 .....3 hrs. HIST 1302 .....3 hrs. ANSC 2371 .....3 hrs. IPM 2313 .....3 hrs. 15 hrs.
Third Year		Fourth Year	
Semester 1	Semester 2	Semester 1	Semester 2
ANSC 3317 .....3 hrs. AGRI 3301 .....3 hrs. ANSC 3340 .....3 hrs. AGRI 3330 .....3 hrs. ANSC 3374 .....3 hrs. 15 hrs.	BIOL 2572 .....3 hrs. ANSC 3355 .....3 hrs. ANSC 3375 .....3 hrs. AGRI 3318 .....3 hrs. 14 hrs.	ANSC 4324/ 4328F .....3 hrs. AGBE 3301/ 3304 .....3 hrs. PSES 3411 .....4 hrs. AGRI 4103 .....1 hr. Elective .....3 hrs. 14 hrs.	ANSC 4320/ 4370 .....3 hrs. AGBE 3302 .....3 hrs. POSC 2306 .....3 hrs. Electives .....6 hrs. 15 hrs.

# Department of Agricultural Sciences

## Major in Plant, Soil and Environmental Science (Major Code: 524)

Select BIOL 1411, CHEM 1411, MATH 1314 and AGBE 2317 to satisfy core curriculum requirements.

### Department Core (13-16 hours)\*

- IDS 1071.
- AGBE 2317.
- AGRI or BIOL 3301.
- AGRI 3318.
- ANSC 1319.
- PSES 1307.

\*If AGBE 2317 is used to meet University core requirements, department core is 13 hours.

### Agricultural Science Core (23 hours)

- AGBE 3301 or 3304, 3302.
- AGRI 3330, 4103.
- ANSC 1329, 3374.
- IPM 2313.
- PSES 3411.

### Major Requirements (17-18 hours)

- PSES 3342, 4330, 4342.
- One course from BIOL 2420, 3418, 3510, 3532, 4510 or 4513.
- CHEM 1412.
- Completion of either the Integrated Pest Management or Plant and Soil Science Track (21-22 hours):
  - **Integrated Pest Management Track**
    - IPM 3343, 4343, 4351, 4361, 4371.
    - Two courses from PSES 2371, 4302, 4331, AGRI 4310, BIOL 3411 or IPM 4398.
  - **Plant and Soil Science Track**
    - AGRI 4310, PSES 4331.
    - Five courses from PSES 1301, 2371, 4302, 4311, 4398, IPM 3343, 4343, 4351, 4361, 4371.

### Electives (2-4 hours)

Curriculum Guide (suggested course sequence)			
Major in Plant, Soil and Environmental Science—Integrated Pest Management Track			
First Year		Second Year	
<b>Semester 1</b> PSES 1307 .....3 hrs. ENGL 1301 .....3 hrs. BIOL 1411 .....4 hrs. MATH 1314 .....3 hrs. IDS 1071 .....1 hr. 14 hrs.	<b>Semester 2</b> ANSC 1319 .....3 hrs. ENGL 1302 .....3 hrs. ANSC 1329 .....3 hrs. POSC 2305 .....3 hrs. HIST 1301 .....3 hrs. PHED 1111 .....1 hr. 16 hrs.	<b>Semester 1</b> CHEM 1411 .....4 hrs. HIST 1302 .....3 hrs. AGBE 2317 .....3 hrs. Humanities cores .....3 hrs. SCOM 1315 or 1321 .....3 hrs. 16 hrs.	<b>Semester 2</b> CHEM 1412 .....4 hrs. PSES 3411 .....4 hrs. IPM 2313 .....3 hrs. POSC 2306 .....3 hrs. 14 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> AGRI 3330 .....3 hrs. AGRI 3301 .....3 hrs. AGBE 3301 or 3304 .....3 hrs. IPM 3343 .....3 hrs. PSES 3342 .....3 hrs. 15 hrs.	<b>Semester 2</b> IPM 4343 .....3 hrs. IPM 4351 .....3 hrs. PSES 4330 .....3 hrs. AGRI 3318 .....3 hrs. PSES 2371, 4302, 4331, AGRI 4310, BIOL 3411 or BIOL 3411 or IPM 4398 .....3-4 hrs. 15-16 hrs.	<b>Semester 1</b> IPM 4361 .....3 hrs. PSES 4342 .....3 hrs. ANSC 3374 .....3 hrs. PSES 2371, 4302, 4331, AGRI 4310, BIOL 3411 or IPM 4398 .....3-4 hrs. 12-13 hrs.	<b>Semester 2</b> AGRI 4103 .....1 hr. IPM 4371 .....3 hrs. AGBE 3302 .....3 hrs. BIOL elective .....4-5 hrs. Electives .....2-4 hrs. 13-16 hrs.

Curriculum Guide (suggested course sequence)			
Major in Plant, Soil and Environmental Science—Plant and Soil Track			
First Year		Second Year	
<b>Semester 1</b> PSES 1307 .....3 hrs. ENGL 1301 .....3 hrs. BIOL 1411 .....4 hrs. HIST 1301 .....3 hrs. MATH 1314 .....3 hrs. IDS 1071 .....1 hr. 17 hrs.	<b>Semester 2</b> ANSC 1319 .....3 hrs. ENGL 1302 .....3 hrs. ANSC 1329 .....3 hrs. POSC 2305 .....3 hrs. Visual/Performing arts core .....3 hrs. PHED 1111 .....1 hr. 16 hrs.	<b>Semester 1</b> CHEM 1411 .....4 hrs. HIST 1302 .....3 hrs. AGBE 2317 .....3 hrs. Humanities cores .....3 hrs. SCOM 1315 or 1321 .....3 hrs. 16 hrs.	<b>Semester 2</b> CHEM 1412 .....4 hrs. PSES 3411 .....4 hrs. IPM 2313 .....3 hrs. AGRI 3301 .....3 hrs. POSC 2306 .....3 hrs. 17 hrs.
Third Year		Fourth Year	
<b>Semester 1</b> AGRI 3330 .....3 hrs. PSES 1301, 2371, IPM 3343, 4351 or 4371* .....3 hrs. PSES 3342 or 4342 .....3 hrs. 14 hrs.	<b>Semester 2</b> ANSC 3374 .....3 hrs. AGRI 3318 .....3 hrs. AGBE 3302 .....3 hrs. PSES 4330 or 4331 .....3 hrs. PSES 4311, IPM 4343*, BIOL 2420, 2572, 4510 or 4513** .....3-5 hrs. 15-17 hrs.	<b>Semester 1</b> PSES 3342 or 4342 .....3 hrs. AGRI 4310 .....3 hrs. PSES 1301, 2371, IPM 3343, 4351 or 4371* .....3 hrs. Elective .....3 hrs. 15 hrs.	<b>Semester 2</b> PSES 4330 or 4331 .....3 hrs. AGRI 4103 .....1 hr. AGBE 3301 or 3304 .....3 hrs. PSES 4311, IPM 4343*, BIOL 2420, 2572, 4510 or 4513** .....3-5 hrs. Electives .....3-4 hrs. 12-16 hrs.

\*Minimum of three courses from these groups.  
\*\*Minimum of one course from this group.

# Department of Agricultural Sciences

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## Preprofessional Program Requirements

### Pre-Veterinary Medicine (Major Code: 505)

Students may complete a bachelor of science degree in animal science, which includes pre-veterinary medicine requirements. Students do not have to complete the bachelor of science degree to apply for admission to a veterinary college. Once students have completed the preprofessional requirements, they may apply. Completion of the preprofessional requirements can be done in as little as two years but usually takes three or four years of undergraduate study. Preprofessional requirements of the 27 schools and colleges of veterinary medicine in the United States vary. Students interested in applying to a school or college of veterinary medicine outside Texas should contact the school or college to obtain information on preprofessional requirements.

To meet Texas A&M University College of Veterinary Medicine preprofessional requirements, suggested curriculum includes:

- AGRI 3301 or BIOL 3301, 3318.
- ANSC 3374.
- BIOL 1406 or 1413, 2572.
- CHEM 1411, 1412, 2523, 2525, 4323 and 4324 (lecture hours only).
- ENGL 1301; 2311; 2332 or 2333 or 2371.
- PHYS 1401, 1402.
- SCOM 1321.

Prerequisite for the above courses include:

- ANSC 1319.
- ENGL 1302.
- MATH 1314.

In addition, to meet requirements for a bachelor of science degree in agriculture, animal science option, suggested curriculum also includes:

- ANSC 2376, 1329, 4317, 3355, 3375.
- Three courses from ANSC 4320, 4321, 4322, 4324, 4326, 4328, 4370.
- AGBE 2317, 3301, 3302.
- AGRI 3330, 4103.
- ECON 2301.
- HIST 1301, 1302.
- IDS 1071.
- PSES 1307, 3411.
- POSC 2305, 2306.
- Three hours from MUSI 1306, THRE 1310, HUMA 1315, ARTS 1303 or 1304.
- PHED 1111.

For information about the master of science (M.S.) degree or doctor of philosophy (Ph.D.) degree, refer to the "Graduate School" section of this catalog.