

# **COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES**

**Dr. Don Cawthon, Dean**

**Joe W. Autry Agriculture Building, Room 101**

**Box T-0180**

**(254) 968-9227**

**<http://www.tarleton.edu/coahs>**

The College of Agricultural and Environmental Sciences includes the Department of Agribusiness, Agronomy, Horticulture, and Range Management; the Department of Agricultural Services and Development; and the Department of Animal Sciences.

Historically, Tarleton has been strong in the discipline of agriculture since its establishment in 1899, and it was known for most of the first half of this century as John Tarleton Agricultural College. Enrollment in Agriculture and Human Sciences exceeds 1,400. With 14 Texas universities offering baccalaureate degrees in agriculture, Tarleton's program is second in number of student majors in Texas and third nationally among non-land-grant universities. Tarleton's graduates have a reputation for high performance and for contributions to their professions in agriculture, agribusiness, education, and human sciences. Many have continued their education and attained graduate and professional degrees at leading universities nationwide.

The majors within the Bachelor of Science in Agriculture include strong programs in Animal Science, Animal Production, Animal Industries, Wildlife Management, Agricultural Economics, Agronomy and Range Management, and Horticulture and Landscape Management. The Department of Animal Sciences also offers a Pre-Veterinary Medicine Program.

The Agricultural Services and Development program, which includes the traditional teacher certification program (Agricultural Education), has received state and national recognition by routinely leading the state of Texas and the nation in numbers of graduates certified to teach. It remains first in the nation today. The department also includes options in Agricultural Communications, Agricultural Extension/Industry, International Agriculture Services, Interdisciplinary Agriculture as well as programs in child and family studies, foods and nutrition, clothing and textiles, housing and design, and consumer economics and resource management. Tarleton presently offers a degree in Human Sciences with specialty options in Extension, Fashion Merchandising, Child and Family Studies, and a Teacher Certification. The Department maintains and manages a Child Development Center, which provides quality educational programs for children ages 3 to 5 years and laboratory experience for Tarleton students. Each program provides strong student internship opportunities.

The Tarleton Agriculture Center, supporting the instructional programs in agriculture, is located on 2,000 acres of University land and includes a dairy; beef cattle center, feedlot, and ranch; confinement swine operation; poultry facility; horse center with arena, stallion barn, and laboratory; horticulture center with greenhouses and laboratory-classroom; golf course laboratory and support greenhouses; and a meats laboratory complete from abattoir to retail processing and sales. Located adjacent to the Texas AgriLife Research and Extension Center, the Tarleton Agriculture Center provides excellent employment experiences for Tarleton undergraduate agriculture majors and research opportunities for those seeking the Master of Science degree in Agriculture.

Tarleton emphasizes quality teaching in all of the agricultural and human science degree programs. Faculties include 40 full-time appointments, 35 with doctoral degrees from leading universities across the nation. Several Texas A&M University System faculty members serve as adjunct or graduate faculty.

## **ACADEMIC PROGRAMS IN AGRICULTURAL AND ENVIRONMENTAL SCIENCES**

Tarleton State University offers undergraduate and graduate programs in the Department of Agribusiness, Agronomy, Horticulture, and Range Management; the Department of Agricultural Services and Development, and the Department of Animal Sciences. Undergraduate programs are offered in the Department of Human Sciences. More detailed information is given regarding the departments, degree options, curricula, and course descriptions in following sections of the catalog. The departments are interdependent and utilize common resources in developing and offering specialized programs appealing to a broad array of student interests.

## **AGRIBUSINESS, AGRONOMY, HORTICULTURE, AND RANGE MANAGEMENT**

**Dr. Roger Wittie, Head**

**Joe W. Autry Agriculture Building, Room 201**

**Box T-0050**

**(254) 968-9221**

**<http://www.tarleton.edu/aahrm>**

The Department of Agribusiness, Agronomy, Horticulture, and Range Management offers three Bachelor of Science degrees. Through the faculty-student advisement process, a course of study is developed to allow the student to pursue his/her interest and potential while preparing for a long-term, productive career in production agriculture and/or agribusiness. Though not a requirement for all careers, a background that includes agricultural experiences either through employment or high school activities is valuable and may be supplemented through college work experiences, internships, cooperative education, and/or mentorships. All of the career tracks within the Department are strongly science/discipline-based with the goal of providing the graduate with the academic background necessary to compete in the current employment market and to be a life long contributor to the profession.

The Department of Agribusiness, Agronomy, Horticulture, and Range Management Bachelor of Science degrees include:

## I. Agricultural Economics

The Agricultural Economics degree allows a choice from two support areas: agricultural economics or agribusiness management. The agricultural economics track includes courses designed to prepare students for a career in the analytical or research sectors of production, marketing, or finance. It also is the preferred track for students preparing for graduate study. The agribusiness management track shifts somewhat to courses that prepare students for entry-level positions in the retail/wholesale sectors of production agriculture or with firms supporting the agricultural industry.

## II. Agronomy and Range Management

This degree includes support areas in crop science, range management, and soil science. The degree is strongly science-based and allows the student to explore the world of resource management and conservation related to the production of food, fiber, and livestock. Students earning the degree may choose a career within the agricultural products and service industry, consulting, private or public lands management, environmental restoration, or pursue a graduate degree.

## III. Horticulture and Landscape Management

This degree offers a choice from four support areas: business, science, golf course management, or integrated pest management. Each track allows students to select from courses necessary to build a strong, successful career. Horticultural business and golf course management are more appropriate tracks for those with interest in private sector employment, while the science and integrated pest management tracks are more appropriate for those interested in public service or graduate study. Employment opportunities include nursery/greenhouse management, landscape design and installation, landscape maintenance, park, sports field or golf course management, and many more.

Students who count ECO 201 as a social & behavioral science may substitute an agricultural elective. CHEM 103 and BIOL 120 are strongly recommended.

### THE BACHELOR OF SCIENCE DEGREE IN AGRICULTURAL ECONOMICS

#### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

<a href="#">AGRI 101</a>	1
<a href="#">AEC 212, AEC 230</a>	6
<a href="#">AEC 312, AEC 314, AEC 317, AEC 333</a>	12
<a href="#">AGRN 105</a> or <a href="#">ANSC 107</a> or <a href="#">HORT 200</a>	3
<a href="#">ECO 201, ECO 202</a>	6
<a href="#">MATH 111</a>	3
<a href="#">ACC 203, ACC 204</a>	6

#### Additional Courses Required for Support Areas in Agricultural Economics

<a href="#">AEC 401, AEC 402, AEC 406, AEC 430</a>	12
<a href="#">AEC 421, AEC 425</a> or <a href="#">AEC 433</a>	6
<a href="#">AEC 484</a> or <a href="#">AEC 488</a>	1-3
<a href="#">ECO 301, ECO 302, ECO 304</a>	9
Advanced Ag Electives	6
Advanced Electives	6

#### in Agribusiness Management

<a href="#">AEC 401, AEC 402, AEC 406</a>	9
<a href="#">AEC 421</a> or <a href="#">AEC 425</a>	3
<a href="#">AEC 484</a> or <a href="#">AEC 488</a>	1-3
<a href="#">AGSD 302</a>	3
Advanced Ag Electives	6
COBA Electives	18

CHEM 105 and CHEM 108 are required as prerequisites for CHEM 201 or CHEM 307.

### THE BACHELOR OF SCIENCE DEGREE IN AGRONOMY AND RANGE MANAGEMENT

#### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

<a href="#">AGRI 101, AGRN 105, AGRN 301</a>	8
<a href="#">ENGL 309</a>	3
<a href="#">BIOL 120, BIOL 315, CHEM 201</a>	12
<a href="#">BIOL 320</a> or <a href="#">BIOL 336</a>	4
<a href="#">ENTO 201</a>	3
Science Electives	4
<a href="#">MATH 350</a>	4

#### Additional Courses Required for Support Areas

in Crop Production	
<a href="#">AGRN 309</a> or <a href="#">GEN 309</a>	4
<a href="#">AGRN 305</a> , <a href="#">AGRN 315</a> , <a href="#">AGRN 320</a> , <a href="#">AGRN 420</a> , <a href="#">AGRN 425</a>	17
ENTO Electives	6
Advanced Ag Electives	6
Advanced Electives	6
<a href="#">AGRN 484</a> or <a href="#">ENTO 484</a> or <a href="#">ENTO 488</a>	1-3
in Range Management	
<a href="#">ANSC 107</a>	3
<a href="#">RNRM 221</a> , <a href="#">RNRM 301</a> , <a href="#">RNRM 305</a> , <a href="#">RNRM 310</a> , <a href="#">RNRM 375</a> , <a href="#">RNRM 412</a>	18
<a href="#">RNRM 300</a> or <a href="#">RNRM 302</a>	3
<a href="#">RNRM 315</a> or BIOL 404	3-4
Advanced Electives	6-7
<a href="#">ANSC 309</a> , <a href="#">ANSC 313</a> , <a href="#">ANSC 403</a> , <a href="#">ANSC 406</a> or <a href="#">ANSC 426</a>	6-7
<a href="#">RNRM 484</a> or <a href="#">RNRM 488</a>	1-3
in Soil Science	
<a href="#">AGRN 302</a> , <a href="#">AGRN 305</a> , <a href="#">AGRN 312</a> , <a href="#">AGRN 420</a>	15
<a href="#">AGRN 484</a> , <a href="#">RNRM 488</a>	3
<a href="#">GEOL 105</a> , <a href="#">GEOL 106</a> , <a href="#">GEOL 313</a> , <a href="#">GEOL 310</a> or <a href="#">GEOL 314</a>	14
Advanced Electives, Science Electives	12

## THE BACHELOR OF SCIENCE DEGREE IN ENVIRONMENTAL SCIENCES

### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

Courses Required for BS in Environmental Sciences	2-3
ENVS 185, 485	6
MATH 109 or 303 or 305 or Elective	19
BIOL 120; GEOL 107; CHEM 108, 201; ES 350	9
ECO 304; ENGL 309; POLS 310	3
ES 220 or AGRN 305 or HYDR 311	
Additional Required Courses	8
For Support Area in Environmental Agriculture	4
AGRN 301, 302	7-8
BIOL 121 OR MATH Elective	7
BIOL 315; BIOL 336 or 353	9
BIOL 307 or 401 or 441; ENTO 380 or 416	7-8
RNRM 315 or 320; AGSD 318; WLDM 221 or 375	
Advanced Electives	
For Support Area in Water Resources	12
BIOL 121, 401, 441	19-20
AGRN 301; ES 413; ENVS 490; GEOL 310, 320; 3	
HYDR 110	7
ES 330 or 340	
Advanced Electives	
For Support Area in Policy and Leadership	18
POLS 305, 306, 307, 410, 6 hours POLS elective	12
SOC 312; ECO 201 or 421; GEOG 110, 201	12
From AEC, ECO or ENVS Advanced Electives	
For Support Area in Environmental Geosciences	8
AGRN 301, 302	4
BIOL 121 or MATH Elective	

GEOL, 105, 106, 313, 320, 412	17
ES 330, 340, 413	9
Advanced Elective	3

## THE BACHELOR OF SCIENCE DEGREE IN HORTICULTURE AND LANDSCAPE MANAGEMENT

### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

<a href="#">AGRI 101</a> , <a href="#">ENTO 201</a> , <a href="#">ENTO 380</a> , <a href="#">AGRN 301</a>	11
<a href="#">HORT 200</a> , <a href="#">HORT 270</a> , <a href="#">HORT 300</a> , <a href="#">HORT 301</a> , <a href="#">HORT 390</a>	15
<a href="#">ENGL 309</a>	3
<a href="#">AGRN 315</a> or <a href="#">HORT 315</a>	4
<a href="#">BIOL 315</a> or <a href="#">HORT420</a>	3-4
For Support Areas in Horticulture Business <sup>1</sup>	
<a href="#">ACC 203</a> , <a href="#">MGMT 303</a>	6
COBA Electives	12
<a href="#">HORT 320</a> , <a href="#">ENTO 405</a>	6
From, <a href="#">HORT401</a> , <a href="#">HORT403</a> , <a href="#">HORT420</a> , <a href="#">HORT430</a> , <a href="#">HORT 450</a> , <a href="#">HORT 470</a>	12
Advanced Ag Electives	3
<a href="#">HORT 484</a> or <a href="#">HORT 488</a>	1-3
For Support Areas in Horticulture Science <sup>1</sup>	
<a href="#">CHEM 108</a> , <a href="#">CHEM 201</a>	8
<a href="#">AGRN 309</a> , <a href="#">BIOL 320</a> , <a href="#">BIOL 336</a>	12
<a href="#">HORT 320</a>	3
From, <a href="#">HORT401</a> , <a href="#">HORT403</a> , <a href="#">HORT420</a> or <a href="#">HORT</a> <a href="#">470</a>	9
<a href="#">HORT 484</a> or <a href="#">ENTO 484</a> or <a href="#">ENTO 488</a>	1-3
Advanced Ag Electives	3
Science Electives	4
For Support Areas in Golf Course Management <sup>1</sup>	
From, <a href="#">CHEM 108</a> or <a href="#">CHEM 201</a> , <a href="#">BIOL 307</a> or <a href="#">BIOL</a> <a href="#">315</a>	4
<a href="#">SPAN 103</a> , <a href="#">BIOL 320</a> , <a href="#">BIOL 336</a> , <a href="#">MGMT 303</a> , <a href="#">AGRN 420</a> , <a href="#">ENTO 405</a> , <a href="#">ENTO 416</a>	24
<a href="#">HORT 380</a> , <a href="#">HORT 470</a> , <a href="#">HORT 480</a>	10
<a href="#">HORT 488</a> or <a href="#">HORT 495</a>	1-3
<a href="#">ACC 203</a> or <a href="#">FIN 301</a>	3
For Support Areas in Integrated Pest Management <sup>1</sup>	
<a href="#">CHEM 108</a> , <a href="#">CHEM 201</a>	8
<a href="#">BIOL 320</a> , <a href="#">BIOL 336</a>	8
<a href="#">AGRN 309</a> , <a href="#">AGRN 420</a>	8
From, <a href="#">ENTO 401</a> , <a href="#">ENTO 405</a> , <a href="#">ENTO 416</a>	6
HORT Electives	3
Advanced Ag Electives	6
<a href="#">AGRN 484</a> or <a href="#">ENTO 484</a> or <a href="#">ENTO 488</a> or <a href="#">AGRN</a> <a href="#">488</a>	1-3

<sup>1</sup>Golf Course Management and Business support areas require CHEM 103 or 105. Science support area requires CHEM 105. All support areas require BIOL 120.

## ANIMAL SCIENCES

Dr. Barry Lambert, Head

Joe W. Autry Agriculture Building, Room 116

Box T-0070

(254) 968-9222

<http://www.tarleton.edu/animalscience>

The Department of Animal Sciences offers a Bachelor of Science degree in four different degree programs: Animal Science, Animal Production, Animal Industries, and Wildlife Management. In addition, the Department of Animal Sciences offers a Pre-Veterinary Medicine

Program. The particular emphasis within each option provides appropriate training according to the career interests of individual students. All students complete similar general education requirements, required by State and University regulations.

Historically, Tarleton has been known for its practical, hands-on approach to agricultural instruction. To allow for as much student exposure to real-life experiences as possible in an academic program, farm and ranch operations involving almost 2,000 acres of land and eight major teaching centers are utilized as agricultural laboratories. In addition to the animal facilities, several classrooms, indoor laboratories, two indoor-teaching pavilions, and an indoor equine arena are utilized in providing students with valuable “how-to-do” experiences.

#### ***I. Animal Science***

This degree program provides a strong foundation in the scientific aspects (the “whys” and “hows”) of animal production, nutrition, reproduction, anatomy, and physiology. Supporting course work in chemistry, biology, and math provides students with background necessary to an understanding of the complex physiological and biological phenomena that explain why and how animals function and perform.

#### ***II. Animal Production***

This degree program stresses the practical “how-to” aspects of commercial livestock production with somewhat less emphasis on the “whys” and “hows” of animal physiology and biochemistry. Animal Production is especially designed for students who expect and desire a career in the commercial production, marketing and/or promotion phases of a livestock industry.

#### ***III. Animal Industries***

The Animal Industries degree program offers students the combination of a strong foundation in animal science courses and basic business courses needed by graduates entering commercial and business enterprises related to animal agriculture.

#### ***IV. Wildlife Management***

The objective of the wildlife management degree is to prepare students to work in the expanding field of wildlife management. The curriculum has the proper content of wildlife management, range management, and biology to allow the student to become a Certified Wildlife Biologist through The Wildlife Society.

##### **Pre-Veterinary Medicine Program**

Students desiring to pursue a veterinary medicine career can complete, at Tarleton, all necessary prerequisites for application to the professional Doctor of Veterinary Medicine (DVM) program at Texas A&M University. Acceptance into the DVM program is quite competitive, and pre-vet students are encouraged to work closely with their academic advisor in planning their individual programs of study.

### **THE BACHELOR OF SCIENCE DEGREE IN ANIMAL INDUSTRIES**

#### **Semester Hours**

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

[ANSC 101](#) or [AGRI 101](#), [ACC 203](#), [AGSD 211](#) or7  
[ACC 204](#)

[CHEM 105](#)<sup>1</sup>, [BIOL 120](#)<sup>1</sup>, [BIOL 121](#), [BIOL 307](#) 16

[ENGL 309](#) or [AGSD 302](#) 3

[ECO 201](#)<sup>1</sup>, [ECO 202](#) or [AEC 105](#) 6

[AGRN 309](#) or [GEN 309](#) or [BIOL 303](#) 4

Advanced AEC, ECO, MKTG, GB, FIN, ACC,12  
MGMT, ADMS, CIS, or COMS

[ANSC 107](#), [ANSC 308](#), [ANSC 309](#), [ANSC 321](#),19  
[ANSC 400](#), [ANSC 485](#)

From, [ANSC 109](#), [ANSC 120](#), [ANSC 201](#), [ANSC9](#)  
[202](#), [ANSC 203](#), [ANSC 207](#), [ANSC 210](#), [ANSC](#)  
[213](#), [ANSC 225](#), [DS 202](#), [WLDM 201](#), [WLDM 221](#),  
[ENTO 201](#) or [ENTO 301](#), [AGRN 105](#)

From, [ANSC 313](#), [ANSC 403](#), [ANSC 410](#), [ANSC3](#)  
[426](#), [ANSC 430](#), [DS 302](#)

Advanced ANSC, DS, or WLDM Electives 9

<sup>1</sup>May be taken as part of the general education requirements

### **THE BACHELOR OF SCIENCE DEGREE IN ANIMAL PRODUCTION**

#### **Semester Hours**

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

[ANSC 101](#) or [AGRI 101](#), [AGRN 105](#), [AEC 105](#) or7

[ECO 201](#)<sup>1</sup>

<a href="#">CHEM 105</a> <sup>1</sup> , <a href="#">BIOL 120</a> <sup>1</sup> or <a href="#">BIOL 121</a>	8
<a href="#">ENGL 309</a> or <a href="#">AGSD 302</a> , <a href="#">AGRN 309</a> or <a href="#">GEN 309</a> <sup>7</sup> or <a href="#">BIOL 303</a>	
<a href="#">RNRM 301</a>	3
Advanced AGSD, ANSC, BIOL, MGMT, MKTG, or GB	14
<a href="#">ANSC 107</a> , <a href="#">ANSC 308</a> , <a href="#">ANSC 309</a> , <a href="#">ANSC 319</a> , <a href="#">ANSC 321</a> , <a href="#">ANSC 400</a> , <a href="#">ANSC 484</a> , <a href="#">ANSC 485</a>	25
From, <a href="#">ANSC 310</a> , <a href="#">ANSC 313</a> , <a href="#">ANSC 403</a> , <a href="#">ANSC</a> <a href="#">410</a> , <a href="#">ANSC 426</a> , <a href="#">DS 302</a>	6
From, <a href="#">ANSC 109</a> , <a href="#">ANSC 120</a> , <a href="#">ANSC 201</a> , <a href="#">ANSC</a> <a href="#">202</a> , <a href="#">ANSC 203</a> , <a href="#">ANSC 207</a> , <a href="#">ANSC 210</a> , <a href="#">ANSC</a> <a href="#">213</a> , <a href="#">ANSC 225</a> , <a href="#">DS 202</a> , <a href="#">WLDM 201</a> , <a href="#">WLDM 221</a> , <a href="#">ENTO 201</a> or <a href="#">ENTO 301</a>	9
From, <a href="#">ANSC 307</a> , <a href="#">ANSC 315</a> , <a href="#">ANSC 324</a> , <a href="#">ANSC</a> <a href="#">325</a> , <a href="#">ANSC 405</a> , <a href="#">ANSC 406</a> , <a href="#">ANSC 408</a> , <a href="#">ANSC</a> <a href="#">412</a> , <a href="#">ANSC 450</a> , <a href="#">ANSC 458</a> , <a href="#">WLDM 310</a> , <a href="#">WLDM</a> <a href="#">311</a> , <a href="#">WLDM 375</a> , <a href="#">WLDM 405</a>	6
Advanced AEC, MGMT, MKTG, GB	3
<sup>1</sup> May be taken as part of the general education requirements	

## THE BACHELOR OF SCIENCE DEGREE IN ANIMAL SCIENCE

### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

<a href="#">ANSC 101</a> or <a href="#">AGRI 101</a> , <a href="#">AEC 105</a> <sup>1</sup>	4
From, <a href="#">ANSC 109</a> , <a href="#">ANSC 120</a> , <a href="#">ANSC 201</a> , <a href="#">ANSC</a> <a href="#">202</a> , <a href="#">ANSC 203</a> , <a href="#">ANSC 207</a> , <a href="#">ANSC 210</a> , <a href="#">ANSC</a> <a href="#">213</a> , <a href="#">ANSC 225</a> , <a href="#">DS 202</a> , <a href="#">WLDM 201</a> , <a href="#">WLDM 221</a> , <a href="#">AGRN 105</a> , <a href="#">ENTO 201</a> or <a href="#">ENTO 301</a>	
<a href="#">CHEM 105</a> <sup>1</sup> , <a href="#">CHEM 108</a> , <a href="#">CHEM 201</a>	12
<a href="#">BIOL 120</a> <sup>1</sup> , <a href="#">BIOL 121</a> , <a href="#">BIOL 307</a>	12
<a href="#">ENGL 309</a>	3
<a href="#">MATH 120</a> or <a href="#">MATH 300</a> or <a href="#">MATH 350</a>	3-4
<a href="#">AGRN 309</a> or <a href="#">GEN 309</a> or <a href="#">BIOL 303</a>	4
Advanced AGRN, RNRM, AEC, AGSD, ENTO, or BIOL	3
Advanced BIOL or CHEM	3-4
<a href="#">ANSC 107</a> , <a href="#">ANSC 308</a> , <a href="#">ANSC 309</a> , <a href="#">ANSC 319</a> , <a href="#">ANSC 321</a> , <a href="#">ANSC 400</a> , <a href="#">ANSC 485</a>	22
From, <a href="#">ANSC 310</a> , <a href="#">ANSC 313</a> , <a href="#">ANSC 403</a> , <a href="#">ANSC</a> <a href="#">410</a> , <a href="#">ANSC 426</a> , <a href="#">DS 302</a>	6
From, <a href="#">ANSC 307</a> , <a href="#">ANSC 315</a> , <a href="#">ANSC 324</a> , <a href="#">ANSC</a> <a href="#">325</a> , <a href="#">ANSC 405</a> , <a href="#">ANSC 406</a> , <a href="#">ANSC 408</a> , <a href="#">ANSC</a> <a href="#">412</a> , <a href="#">ANSC 450</a> , <a href="#">ANSC 458</a>	3
Advanced ANSC, DS, or WLDM electives	3
<sup>1</sup> May be taken as part of the general education requirements	

## THE BACHELOR OF SCIENCE DEGREE IN WILDLIFE MANAGEMENT

### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

<a href="#">AGRN 301</a>	4
<a href="#">ANSC 107</a> , <a href="#">ANSC 309</a> or <a href="#">ANSC 406</a>	6-7
<a href="#">BIOL 120</a> <sup>1</sup> , <a href="#">BIOL 121</a> , <a href="#">BIOL 315</a>	12
<a href="#">BIOL 303</a> or <a href="#">AGRN 309</a> or <a href="#">GEN 309</a> , <a href="#">BIOL 401</a> or <a href="#">RNRM 315</a>	7-8
<a href="#">CHEM 105</a> <sup>1</sup> , <a href="#">CHEM 108</a> , <a href="#">ENGL 309</a> , <a href="#">ENTO 201</a> or <a href="#">ENTO 301</a>	14
<a href="#">MATH 300</a> or <a href="#">MATH 350</a>	3-4

[WLDM 101](#) or [ANSC 101](#) or [AGRI 101](#), [WLDM 2214](#)  
or [RNRM 221](#)  
[WLDM 305](#) or [ANSC 403](#) or [ANSC 313](#) or [CHEM](#)3-4  
[201](#)  
[WLDM 310](#) or [RNRM 310](#), [WLDM 385](#), [WLDM 485](#),10  
[WLDM 484](#) or [WLDM 440](#)

<sup>1</sup>May be taken as part of the general education requirements

Additional Courses Required for Emphasis

Certified Wildlife Biologist Emphasis

[BIOL 451](#) or [BIOL 430](#) 4

[WLDM 201](#) or [WLDM 426](#), [WLDM 375](#), [WLDM 401](#)9

or [MATH 109](#)

From WLDM, ANSC, RNRM, or BIOL 3

[RNRM 300](#) or [RNRM 301](#) or [RNRM 302](#) or [RNRM](#)3

[416](#) or [BIOL 306](#)

Additional Courses Required for Emphasis

Wildlife Production Emphasis

[ANSC 201](#) or [WLDM 201](#), [ANSC 426](#) or [WLDM 426](#)6

[ANSC 308](#), [ANSC 319](#) 7

[RNRM 300](#) or [RNRM 302](#), [RNRM 301](#) 6

Additional Courses Required for Minor

Interdisciplinary Minor in Wildlife Management\*

Total Semester Hours: 18

[BIOL 315](#) 4

[BIOL 401](#) or [RNRM 315](#) 3-4

[WLDM 221](#), [WLDM 310](#) 6

From WLDM Electives, [BIOL 430](#), [BIOL 451](#) or4-5

[BIOL 462](#)

\*This is only minor available in Wildlife Management

Suggestions for Application for Admission to College of Veterinary Medicine Texas A&M University<sup>1</sup>

**PRE-VETERINARY MEDICINE PROGRAM**

**Semester Hours**

Courses Required for Major

[ANSC 101](#) or [AGRI 101](#), [ENTO 301](#) 4

[BIOL 120](#), [BIOL 121](#), [BIOL 307](#), [BIOL 474](#), [BIOL](#)18

[478](#)

[CHEM 105](#), [CHEM 108](#), [CHEM 201](#), [CHEM 202](#) 16

[ENGL 111](#), [ENGL 112](#), [ENGL 220](#), [ENGL 309](#) 12

[MATH 107](#), [MATH 109](#), [MATH 120](#) or [MATH 350](#) 9-10

[HIST 201](#), [HIST 202](#) 6

[CIS 110](#) 3

[AGRN 309](#) or [GEN 309](#) or [BIOL 303](#) 4

[ANSC 107](#), [ANSC 309](#), [ANSC 406](#) 10

[PHYS 104](#), [PHYS 105](#) 8

[POLS 201](#), [POLS 202](#) 6

[COMS 301](#) 3

Accelerated Courses Required for Major<sup>2</sup>

[ANSC 101](#) or [AGRI 101](#) 1

[AGRN 309](#) or [GEN 309](#) or [BIOL 303](#) 4

[ANSC 107](#), [ANSC 309](#) or [ANSC 406](#) 6-7

[BIOL 120](#), [BIOL 121](#), [BIOL 307](#), [BIOL 474](#) or [CHEM](#)18

[474](#), [BIOL 478](#) or [CHEM 475](#)

[CHEM 105](#), [CHEM 108](#), [CHEM 201](#) or [ENGL 111](#),16

[CHEM 202](#) or [ENGL 112](#)

[ENGL 111](#), [ENGL 112](#), [ENGL 220](#) 9

[MATH 107](#), [MATH 109](#), [MATH 120](#) or [MATH 350](#) 9-10

[ENGL 309](#), [COMS 301](#) 6

[PHYS 104](#), [PHYS 105](#) 8

<sup>1</sup>Requirements subject to change pending decisions of TAMU College of Veterinary Medicine. If a fourth year of study leading to a baccalaureate degree is pursued prior to entry into veterinary college, additional Tarleton general education requirements must be completed.

<sup>2</sup>Recommended for gifted students with exceptionally strong high school background. Meets minimum recommendations for application to the professional veterinary medical program. All courses can also be applied towards a BS degree in Animal Science or

other chosen related field; however, additional lower-level courses are required to meet Tarleton and/or State of Texas baccalaureate requirements.

A program in Pre-Veterinary Medicine is also offered through the Department of Biological Sciences. Although the Pre-Veterinary programs offered through the Departments of Animal Sciences and Biological Sciences each meet all the requirements for admission to the Texas A&M College of Veterinary Medicine, a student is typically best suited for one program or the other. It is important that a student discuss with an advisor which program is best suited to his or her interests, skills, and goals.

For additional detailed information on application and other requirements, refer to the current issue of "Applicant Information," available from the College of Veterinary Medicine, Texas A&M University, College Station, TX 77843-4461; phone (800) 874-9591.

## **AGRICULTURAL SERVICES AND DEVELOPMENT**

**Dr. David Drueckhammer, Head**

**Joe W. Autry Agriculture Building, Room 105**

**Box T-0040**

**(254) 968-9200**

**<http://www.tarleton.edu/agsservices>**

The Department of Agricultural Services and Development was created with the flexibility to design career programs for students. Individuals seeking knowledge in education, communications, and various humanistic interactions within all segments of the agricultural industry will find interest in the department's offerings. Included are programs in Agricultural Science Teacher Certification, Agricultural Communication, Agricultural Extension/Industry, International Agricultural Services, Interdisciplinary Agriculture, Production Agriculture, and Agri Systems Management. Internships are a part of all programs.

The Department of Agricultural Services and Development administers the Bachelor of Science degree with the following degree programs and support areas:

### ***I. Agricultural Services and Development***

Agricultural Science with Teacher Certification

This program is commonly referred to as Agricultural Education and provides you with the skills and knowledge to become a teacher of Agricultural Science in public schools or pursue employment with government and agricultural business and industry.

Agricultural Communications

The program provides the student with both agricultural and communication skills. The degree opens the career opportunities of agricultural communication as well as many other agricultural and communication related fields including: agricultural publications, radio, livestock organizations, commodity groups, and governmental agencies that provide communication and information.

Agricultural Extension/Industry

This is a flexible degree program to prepare you for a career in agricultural business, industry, agriculture extension, and government agency settings. The degree provides a broad based agricultural experience and allows the student to specialize in an area of agriculture of business.

International Agricultural Services

This is a progressive program allowing you the opportunity to study and experience the agriculture of other countries. The program offers a solid and diversified educational curriculum including technical agriculture, marketing and international business and cultural coursework.

### ***II. Interdisciplinary Agriculture***

Production Agriculture

This program provides a diversified agricultural program for students and prepares graduates for careers in diversified farming and ranching operations.

Agri Systems Management

This program is designed to prepare graduates for employment as managers in mechanical related business of agriculture. The curriculum includes numerous areas of agricultural mechanics along with management, relating and sales.

## **THE BACHELOR OF APPLIED ARTS AND SCIENCES DEGREE IN AGRICULTURAL OCCUPATIONS**

### **Semester Hours**

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

Courses Required for Major

Approved Technical Training, Approved Work Experience 33

[AGSD 301](#), [AGSD 430](#) 4

Emphasis Area with at least 15 hours upper level 24

Approved Advanced Electives 17

\*All students planning to transfer into Agricultural Services and Development need to take one Biology course and CHEM 105 as the lab science requirements.

### THE BACHELOR OF SCIENCE DEGREE IN AGRICULTURAL SERVICES AND DEVELOPMENT

#### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

[AGRN 105](#), [AEC 314](#), [HORT 200](#) 9  
[ANSC 107](#), [WLDM 221](#), [HS 304](#) 9  
[AGSD 101](#), [AGSD 201](#), [AGSD 211](#), [AGSD 302](#),20  
[AGSD 410](#), [AGSD 450](#), [AGSD 485](#), [ENGL 309](#)

#### Additional Courses Required for Support Areas

For Agricultural Science with Teacher Certification

[ANSC 313](#) or [ANSC 403](#) or [ANSC 410](#) 3  
[HORT 360](#), [AGRN 425](#) 6  
[AGSD 230](#), [AGSD 306](#), [AGSD 401](#), [AGSD 406](#),21  
[AGSD 407](#), [AGSD 420](#)  
[PSY 220](#) or [PSY 303](#) or [HS 300](#), [RDG 351](#), [EDU](#)12  
[320](#), [EDU 330](#)

For Agricultural Communications

Advanced Ag Elective 3  
 Elective 3  
 Advanced Elective 3  
[AGSD 301](#), [AGSD 430](#) 4  
[ACOM 484](#), [ACOM 490](#) 9  
[COMS 131](#), [COMS 214](#), [COMS 215](#), [COMS 308](#),15  
[COMS 310](#)

For Agriculture Extension/Industry

[ANSC 313](#) or [ANSC 403](#) or [ANSC 410](#) 3  
 3 hours AGSD Elective and 3 hours Advanced6  
 AGSD Elective  
[AGSD 301](#), [AGSD 405](#), [AGSD 430](#), [AGSD 484](#)<sup>1</sup> 13  
 Advanced ACOM Elective 3  
 Advanced Ag Elective 3  
 Electives 6  
 Advanced Electives 6

<sup>1</sup>A 2.25 overall GPA is required for a student to enroll in the internship semester.

BIOL 120 or 121 and CHEM 103 or 105 recommended.

### THE BACHELOR OF SCIENCE DEGREE IN AGRICULTURAL SERVICES AND DEVELOPMENT INTERNATIONAL AGRICULTURAL SERVICES

#### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

#### Courses Required for Major

[GB 312](#) or [ENGL 309](#), [SPAN 101](#), [SPAN 102](#),14  
[SPAN 201](#)  
[MKTG 314](#), [MKTG 454](#), [GB 444](#) 9  
[AGSD 211](#) or [AEC 212](#), [AEC 401](#) or [AEC 402](#) 6  
[AGRN 105](#), [ANSC 107](#) 6  
[AGSD 101](#), [AGSD 301](#), [AGSD 302](#), [AGSD 410](#),20  
[AGSD 430](#), [AGSD 455](#), [AGSD 484](#)  
 Advanced Ag Electives 6  
 Advanced Ag or Business Electives 8  
 From, [SOC 303](#), [HIST 336](#), [POLS 308](#), [POLS 405](#),6  
[POLS 415](#)  
 From, [SWK 208](#) or [SOC 101](#) or [SOC 201](#) 3

### THE BACHELOR OF SCIENCE DEGREE IN HUMAN SCIENCES

#### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

<u>Courses Required for Major</u>	
<a href="#">HS 102</a>	3
<u>Additional Courses Required for Support Areas</u>	
For Family and Consumer Sciences/Extension	
<a href="#">ENGL 309</a> , <a href="#">COMS 301</a> <sup>1</sup>	6
Advanced Electives	6
<a href="#">HS 101</a> , <a href="#">HS 104</a> , <a href="#">HS 105</a> , <a href="#">HS 202</a> , <a href="#">HS 205</a> , <a href="#">HS 210</a> , <sup>51</sup> <a href="#">HS 300</a> , <a href="#">HS 304</a> , <a href="#">HS 306</a> , <a href="#">HS 309</a> or <a href="#">HS 316</a> , <a href="#">HS 317</a> , <a href="#">HS 325</a> , <a href="#">HS 407</a> , <a href="#">HS 456</a> , <a href="#">HS 460</a> , <a href="#">HS 470</a> , <a href="#">HS 484</a>	
Advanced HS Electives	3
For Fashion Merchandising	
<a href="#">ART 231</a> , <a href="#">ART 232</a> , <a href="#">ACC 203</a>	9
<a href="#">ECO 101</a> <sup>1</sup> , <a href="#">COMS 213</a>	6
<a href="#">MGMT 301</a> , <a href="#">MGMT 302</a> , <a href="#">MGMT 407</a>	9
<a href="#">MKTG 314</a> , <a href="#">MKTG 318</a> or <a href="#">MKTG 401</a>	6
<a href="#">HS 101</a> , <a href="#">HS 105</a> , <a href="#">HS 109</a> , <a href="#">HS 202</a> , <a href="#">HS 203</a> , <a href="#">HS 206</a> <sup>18</sup> <a href="#">HS 300</a> or <a href="#">HS 309</a> or <a href="#">HS 316</a> or <a href="#">HS 409</a> , <a href="#">HS 302</a> , <sup>30</sup> <a href="#">HS 306</a> , <a href="#">HS 308</a> , <a href="#">HS 326</a> , <a href="#">HS 327</a> , <a href="#">HS 408</a> , <a href="#">HS 456</a> , <a href="#">HS 460</a> , <a href="#">HS 484</a>	
For Child and Family Studies Support Area	
12 hours Electives, 6 hours Advanced	18
<a href="#">ENGL 309</a>	3
<a href="#">HS 104</a> , <a href="#">HS 105</a> , <a href="#">HS 109</a> or <a href="#">HS 202</a> , <a href="#">HS 210</a> , <a href="#">HS</a> <sup>45</sup> <a href="#">220</a> , <a href="#">HS 300</a> , <a href="#">HS 305</a> , <a href="#">HS 309</a> , <a href="#">HS 316</a> , <a href="#">HS 325</a> , <a href="#">HS 333</a> , <a href="#">HS 409</a> , <a href="#">HS 456</a> , <a href="#">HS 460</a> , <a href="#">HS 484</a>	
HS Advanced Electives	9
For Family and consumer Sciences Secondary Teacher Certification	
<a href="#">RDG 351</a>	3
<a href="#">EDU 320</a> , <a href="#">EDU 330</a> , <a href="#">EDU 430</a> , <a href="#">EDU 435</a> , <a href="#">EDU 490</a> <sup>18</sup>	
Advanced English Elective (200 or above)	3
<a href="#">PSY 220</a> or <a href="#">PSY 303</a>	3
<a href="#">HS 105</a> , <a href="#">HS 202</a> , <a href="#">HS 205</a> , <a href="#">HS 210</a> , <a href="#">HS 300</a> , <a href="#">HS 306</a> , <sup>45</sup> <a href="#">HS 309</a> or <a href="#">HS 316</a> , <a href="#">HS 311</a> , <a href="#">HS 312</a> , <a href="#">HS 317</a> , <a href="#">HS 325</a> , <a href="#">HS 333</a> , <a href="#">HS 407</a> , <a href="#">HS 409</a> , <a href="#">HS 470</a>	
HS Electives	6

<sup>1</sup>Count towards university general education requirements.

## EMPHASIS AREAS

A student pursuing a Bachelor of Business Administration degree in Interdisciplinary Business may elect Fashion Merchandising, or Housing and Interiors as the supporting field for his/her degree. These emphases combine Human Sciences and the various business disciplines. Information about these areas of study may be obtained from an advisor in the Department of Human Sciences or the Department of Management, Marketing, and Administrative Systems.

## THE BACHELOR OF SCIENCE DEGREE IN INTERDISCIPLINARY AGRICULTURE

### Semester Hours

University General Education Requirements 42

See page 79 for additional information about the Tarleton State University general education requirements. **Course descriptions begin on page 281.**

<u>Courses Required for Major</u>	
<a href="#">AEC 212</a> or <a href="#">AGSD 211</a> , <a href="#">AEC 314</a>	6
<a href="#">AGSD 101</a> , <a href="#">AGSD 201</a> , <a href="#">AGSD 221</a> , <a href="#">AGSD 301</a> , <sup>19</sup> <a href="#">AGSD 302</a> , <a href="#">AGSD 318</a> , <a href="#">AGSD 484</a> , <a href="#">AGSD 485</a>	
<a href="#">ANSC 107</a> , <a href="#">AGRN 105</a>	6
<a href="#">MGMT 301</a> , <a href="#">ENGL 309</a>	6
<u>Additional Courses Required for Support Areas</u>	
For Production Agriculture	
<a href="#">ENTO 201</a> , <a href="#">AGRN 309</a>	7
<a href="#">ANSC 309</a> , <a href="#">ANSC 403</a> , <a href="#">AEC 406</a>	10
<a href="#">WLDM 201</a> or <a href="#">DS 202</a> or <a href="#">ANSC 321</a>	3
AGSD Advanced Electives	6
AEC Advanced Elective	3
Advanced ANSC or WLDM	3
Advanced AGRN or RNRM	6
Advanced Ag Elective	3
For Agri Systems Management	

<a href="#">AEC 433</a>	3
<a href="#">AGSD 230</a> , <a href="#">AGSD 325</a> , <a href="#">AGSD 329</a> , <a href="#">AGSD 340</a> ,	26
<a href="#">AGSD 402</a> , Advanced AGSD Electives	
<a href="#">HYDR 110</a>	3
<a href="#">MGMT 302</a> , <a href="#">MGMT 303</a> , <a href="#">MKTG 317</a>	9