School of Agriculture

Tony Brannon, Dean
103 South Oakley Applied Science Building
270-809-3328

10

Broad opportunities for young people to prepare for agricultural and related careers are offered by the School of Agriculture. The School of Agriculture offers three undergraduate degree programs: a Bachelor of Science in Agriculture, a Bachelor of Science with a major in Agriculture, and an Associate of Science with emphasis in agricultural science and technology. Minors are available in agriculture and in equine science.

The School of Agriculture includes the Department of Agricultural Science, the Department of Animal and Equine Science, and the Department of Animal Health Technology and Pre-Veterinary Medicine. Agricultural facilities include the farm laboratory complex, the Cherry Agricultural Exposition Center, and the Breathitt Veterinary Center. The horse, beef, agronomy, and horticulture facilities are a part of the farm-laboratory complex. The Cherry Agricultural Exposition Center is utilized for equine and rodeo classes, contests, field days, judging contests, clinics, and numerous agricultural activities.

MSU's Breathitt Veterinary Center (BVC), located in Hopkinsville, Kentucky, has as its primary mission the provision of diagnostic data; however, its mission also includes instruction and research. The laboratory is accredited through the American Association of Veterinary Laboratory Diagnosticians. The center's facilities and personnel provide learning experiences for students in the animal health technology program. The BVC also conducts research dealing with infectious diseases of food animals.

Department of Agricultural Science
212 Oakley Applied Science South
270-809-3327

Head: Dwayne Driskill. **Faculty:** Anderson, Blankenship, Board, Brannon, Driskill, Ferguson, Handayani, Hoover, Peake, Morgan, Morrow, Payne, Vincent, Williams.

The Department of Agriculture Science offers a Bachelor of Science in Agriculture Degree with the following options: (1) agronomy, (2) agriculture science/ agriscience technology option, (3) agricultural education, (4) agribusiness, (5) agriculture systems technology, and (6) horticulture. The agriculture science/ agriscience technology option includes emphases in emerging technology, communications/public relations, environmental/ health, agriculture public service/leadership, and agriculture technology.

Facilities for agriculture science include classrooms and labs in Oakley Applied Science South, Howton Agriculture Engineering Building, the West Farm, the Pullen Farm Complex with three greenhouses and environmental center lab, and the agriculture systems technology farm lab.

AREA:
Agricultural Science/AgriScience Technology Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements ..... 44 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
AGR 199 Contemporary Issues in Agriculture[1]
BIO 103 Saving Planet Earth
or
POL 140 American National Government
•*University Studies Electives:*
CHE 106 Introductory Chemistry II
or
GSC 199 Earth Science

Agriculture Core Courses ..... 26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

AgriScience Technology Option..... 24 hrs
AED 380 Agricultural Education Extension and Leadership
AGR 377 Agriculture Safety
AGR 433 Farm Management
and one of the following:
AGR 300 Principles of Animal Nutrition
AGR 301 Livestock Judging and Evaluation
AGR 302 Horse Science

AGR 311 Beef Science
AGR 312 Dairy Science
AGR 321 Poultry Science
AGR 326 Swine Science
and one of the following:
AGR 330 Principles of Agribusiness
AGR 333 Agribusiness Records and Analysis
AGR 337 Agricultural Sales and Merchandising
and one of the following:
AGR 360 Greenhouse Production and Management
AGR 461 Plant Propagation
AGR 542 Plant Breeding I
AGR 549 Weeds and Their Control
one of the following:
AGR 372 Agricultural Metal Processes
AGR 379 Field Equipment Technology Management
AGR 470 Soil and Water Engineering
AGR 477 Agricultural Power Units
AGR 576 Agricultural Electrification Systems
AGR 577 Tractor Power Principles
and
AGR electives: *3 hrs*[1]

Required Support Courses .....21-22 hrs
Choose one of the following support course emphases.

Emerging Technology Emphasis: *22 hrs*
AGR 471 Applications in Precision Agriculture[2]
AGR 571 Advanced Precision Agriculture[2]
GSC 202 Introduction to Geographic Information Science
GSC 561 Precision GIS/GPS Applications
Select three of the following:
AGR 439 Software Applications for Agriculture[2]
or
AGR 539 Advanced Computer Applications for Agriculture[2]
CSC 125 Internet and World Wide Web Technologies
GSC 521 Geographic Information Systems
TSM 120 Introduction to Telecommunications

Communications/Public Relations Emphasis: *21 hrs*
JMC 168 Contemporary Mass Media
JMC 194 Newswriting
JMC 330 Mass Media Effects
JMC 391 Public Relations Principles
JMC 412 Writing for Public Relations
JMC 590 Mass Communications Law
AGR 585 Specialized Journalism/RTV[2]
or
JMC 591 Advanced Public Relations

Environmental/Health Emphasis: *21 hrs*
AGR 378 Agricultural Environmental Management Systems
CET 555 Environmental Regulatory Affairs
CET 587 Biosolids and Nutrient Management Systems
ENT 286 Introduction to Environmental Engineering Technology
AGR/CET/OSH Electives: 9 hrs approved by advisor[1]

Agriculture Public Service/Leadership Emphasis: *21 hrs*
AED 583 Practicum in Agricultural Education, Extension, and Public Service Leadership[2]
AGR 488 Cooperative Education/Internship[2]
AGR 489 Cooperative Education/Internship
Advisor approved Electives in AGR, AED, COM, CTE, MGT, YNL: *12 hrs*[1]

Agricultural Technology Emphasis: *21-22 hrs*
AGR 313 Livestock Production Management Systems
AGR 439 Software Applications for Agriculture
AGR 471 Applications in Precision Agriculture
AGR 499 Leadership/Professional Development Seminar II
AGR 537 Seminar in Agricultural Business Systems
AGR 538 Seminar in Production Agricultural Systems
or
AGR 571 Advanced Precision Agriculture
AGR 539 Advanced Computer Applications for Agriculture
AGR 547 Crop Management

Unrestricted Electives .....4-5 hrs

Total Curriculum Requirements .....120 hrs
[1]AGR 199 fulfills both Agriculture Core and a University Studies elective requirement.
[2]These agriculture electives may be fulfilled by agriculture courses used in the chosen emphasis.

AREA: Agricultural Science/Agricultural Education/ Certification Option (Grades 5-12)

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....44 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions:*
AGR 200 International Agricultural Experience
or
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra[1]
or
MAT 135 Introduction to Probability and Statistics
•*Social and Self-Awareness and Responsible Citizenship:*
BIO 103 Saving Planet Earth
or
POL 140 American National Government
EDP 260 Psychology of Human Development
•*University Studies Electives:*
AGR 199 Contemporary Issues in Agriculture[2]
Choose one of the following:
BIO 221 Zoology
BIO 222 Botany
CHE 106 Introductory Chemistry II
GSC 199 Earth Science

Note: Certification requires a grade of *B* or better in one English composition course and a *C* or better in a University Studies math course, public speaking, and EDU 103 or equivalent course. Additional requirements for admission to teacher education and student teaching must be met. See advisor and/or Office of Teacher Education Services for details.

Agriculture Core Courses .....26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics

AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[2]
AGR 339 Computer Applications for Agriculture[1]
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Agricultural Education Option.....24 hrs
AED 380 Agricultural Education, Extension, and Leadership
AED 583 Practicum in Agricultural Education, Extension, and Public Service Leadership[1]
AGR 360 Greenhouse Production and Management
AGR 337 Agricultural Sales and Merchandising
or
AGR 433 Farm Management
Choose one of the following:
AGR 303 Advanced Horse Science
AGR 321 Poultry Science
AGR 325 Small Ani*mal Science
AGR 461 Plant Propagation
AGR 471 Applications in Precision Agriculture
AGR 555 Advanced Soil Fertility
AGR 573 Agricultural Processing Systems
Choose one of the following:
AGR 362 Floral Design
AGR 364 Nursery Management
AGR 367 Residential Landscape Design
AGR 368 Landscape Construction
Choose one of the following:
AGR 300 Principles of Animal Nutrition
AGR 301 Livestock Judging
AGR 302 Horse Science
AGR 311 Beef Science
AGR 326 Swine Science
Choose one of the following:
AGR 371 Agricultural Buildings and Construction
AGR 372 Agricultural Metal Processes
AGR 570 Agricultural Systems Technology Laboratory Management

Required Support Courses.....31 hrs
AED 580 Methods of Teaching Agricultural Education[1]
CTE 501 Teaching through Application
CTE 502 Instructional Media, Curricula and Assessment in CTE
CTE 503 Planning and Implementing Instruction in CTE
HEA 195 First Aid and Safety
SEC 421 Student Teaching in Secondary School
SED 300 Educating Students with Disabilities

Total Curriculum Requirements .....122 hrs

[1]With a grade of *C* or better.
[2]AGR 199 will fulfill both the agriculture core and university studies elective.

AREA: Agricultural Science/Agribusiness Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....43 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
BIO 103 Saving Planet Earth
or
POL 140 American National Government
ECO 230 Principles of Macroeconomics
•*University Studies Electives:*
AGR 199 Contemporary Issues in Agriculture[1]
ECO 231 Principles of Microeconomics
POL 250 Introduction to International Relations

Agriculture Core Courses .....26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Agribusiness Option.....24 hrs
AGR 328 Statistics for Food and Agriculture
AGR 330 Principles of Agribusiness
AGR 336 Agricultural Marketing and Price Analysis
AGR 337 Agricultural Sales and Merchandising
AGR 433 Farm Management
AGR 531 Agricultural Finance
AGR 535 Agricultural Policy
AGR electives: *3 hrs*

Required Support Courses.....12-24 hrs
Choose one of the following support course emphases.

Crop Production Emphasis
ACC 200 Principles of Accounting I
AGR 455 Soil Management
AGR 546 Integrated Pest Management

AGR 547 Crop Management
AGR 549 Weeds and their Control
AGR 555 Advanced Soil Fertility
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing

Entrepreneurship Emphasis
ACC 200 Principles of Accounting I
AGR 334 Entrepreneurship in Agribusiness
MGT 350 Fundamentals of Management
MGT 358 Entrepreneurial Business Plan Development

Global Emphasis
ACC 200 Principles of Accounting I
MKT 360 Principles of Marketing
MKT 568 Global Marketing Management
Choose one of the following:
AGR 353 World Food, Agriculture and Society
AGR 529 International Trade and Agriculture
AGR 533 Seminar in International Agriculture Systems
Three hours of foreign language

Marketing/Management Emphasis
ACC 200 Principles of Accounting I
MGT 350 Fundamentals of Management
MKT 360 Principles of Marketing
Approved upper-level, 3 hour business elective

Unrestricted Electives ..... 3-15 hrs[2]

Total Curriculum Requirements .....120 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.
[2]Students wishing to qualify for admission to Murray State's Master of Business Administration (MBA) program should chose the following courses as part of the Unrestricted Electives requirement: ACC 201, BPA 355, CIS 443, FIN 330, MAT 220 (this course will fulfill a University Studies Elective).

AREA:
Agricultural Science/ Agricultural Systems Technology Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....45 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 130 Technical Math I
•*Social and Self-Awareness and Responsible Citizenship:*
AGR 199 Contemporary Issues in Agriculture[1]
•*University Studies Electives: (Choose one of the following.)*
CHE 106 Introductory Chemistry II
GSC 199 Earth Science
PHY 130 General Physics I

Agriculture Core Courses .....26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Agriculture Systems Technology Option.....24 hrs
AGR 371 Agricultural Buildings and Construction
AGR 372 Agricultural Metal Processes
AGR 377 Agriculture Safety
AGR 477 Agricultural Power Units
or
AGR 577 Tractor Power Principles
Approved agricultural systems technology electives: *9 hrs*
AGR electives: *3 hrs*

Support Courses.....6 hrs
AGR 471 Applications in Precision Agriculture
AGR 488 Cooperative Education/Internship
Or Select two of the following with advisor approval:
AGR 489 Cooperative Education/Internship
AGR 543 Records Management and Regulatory Issues
AGR 571 Advanced Precision Agriculture
ENT 111 Electric Systems
ITD 101 Introduction to Design and Graphic Communication
ITD 104 CAD Application and Design Communication
ITD 304 Computer Graphics and Design
ITD 330 Machine Tool Processes

Unrestricted Electives .....19 hrs

Total Curriculum Requirements .....120 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.

AREA:
Agricultural Science/Agronomy Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....47 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society

SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
BIO 103 Saving Planet Earth
or
POL 140 American National Government
AGR 199 Contemporary Issues in Agriculture[1]
•*University Studies Electives:*
CHE 106 Introductory Chemistry II
GSC 199 Earth Science

Agriculture Core Courses .....26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Agronomy Option .....25 hrs
AGR 346 Soil Science Laboratory
AGR 455 Soil Management
AGR 470 Soil and Water Engineering
AGR 471 Applications in Precision Agriculture
AGR 542 Plant Breeding I
AGR 546 Integrated Pest Management
AGR 547 Crop Management
AGR 549 Weeds and Their Control
AGR electives (3 hrs)

Required Support Courses.....15 hrs
Choose one of the following support course emphases.

Practicum Emphasis
AGR 488 Cooperative Education/Internship
AGR 489 Cooperative Education/Internship
Agronomy approved electives (6 hrs)
Choose one of the following:
AGR 330 Principles of Agribusiness
AGR 433 Farm Management
AGR 543 Records Management and Regulatory Issues
AGR 571 Advanced Precision Agriculture

Research Emphasis
AGR 328 Statistics for Food and Agriculture
AGR 571 Advanced Precision Agriculture
BIO 300 Introductory Microbiology
Agronomy advisor approved research electives (5 hrs)

Sales/Production Emphasis
AGR 330 Principles of Agribusiness
or
AGR 433 Farm Management
AGR 333 Agribusiness Records and Analysis
AGR 336 Agricultural Marketing and Price Analysis
or
AGR 337 Agricultural Sales and Merchandising
AGR 543 Records Management and Regulatory Issues
Agronomy advisor approved electives (3 hrs)

Unrestricted Electives .....11 hrs

Total Curriculum Requirements .....120 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.

AREA:
Agricultural Science/Horticulture Option

Bachelor of Science in Agriculture Degree
CIP 01.0000

University Studies Requirements .....44 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 222 Botany: Plant Form and Function
CHE 101 Consumer Chemistry
or
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
AGR 199 Contemporary Issues in Agriculture[1]
•*University Studies Electives:*
CHE 106 Introductory Chemistry II
or
GSC 199 Earth Science

Agriculture Core Courses .....26 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone

Horticulture Option .....25 hrs
AGR 263 Woody Plant Materials I
AGR 346 Soil Science Laboratory
AGR 360 Greenhouse Production and Management
AGR 361 Horticulture and Greenhouse Management Practicum
or

AGR 460 Professional Experience in Horticulture
AGR 363 Woody Plant Materials II
AGR 365 Herbaceous Plant Materials
AGR 367 Residential Landscape Design
or
AGR 462 Fine Turf Management
or
AGR 563 Arboriculture
AGR 461 Plant Propagation
AGR electives: *6 hrs*

Unrestricted Electives .....25 hrs

Total Curriculum Requirements .....120 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.

MAJOR: Agricultural Science

Bachelor of Science/Bachelor of Arts Degree
CIP 01.0000

University Studies Requirements .....46-58 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Global Awareness, Cultural Diversity and the World's Artistic Traditions: (Choose one of the following.)*
AGR 200 International Agricultural Experience
AGR 353 World Food, Agriculture and Society
SPA 106 Basic Spanish and Culture for Agriculture
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
BIO 103 Saving Planet Earth
or
POL 140 American National Government
AGR 199 Contemporary Issues in Agriculture[1]
•*University Studies Electives:*
CHE 106 Introductory Chemistry II
GSC 199 Earth Science

Agriculture Core Courses .....38 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR 599 Agriculture Senior Capstone
AGR electives: *12 hrs*

Required Minor.....21 hrs

Unrestricted Electives.....17 hrs

Total Curriculum Requirements .....120 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.

ASSOCIATE: Agricultural Science and Technology

Associate of Science Degree
CIP 01.0000

University Studies Requirements .....18 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
or
CHE 105 Introductory Chemistry I
or
PHY 120 General Physics I
MAT 140 College Algebra

Agriculture Core Courses .....44 hrs
AED 380 Agricultural Education, Extension, and Leadership
AGR 099 Transitions
AGR 100 Animal Science
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 160 Horticultural Science
or
AGR 240 Crop Science
AGR 170 Introduction to Agricultural Systems Technology
AGR 199 Contemporary Issues in Agriculture[1]
AGR 339 Computer Applications for Agriculture
AGR 345 Soil Science
AGR 399 Professional Development Seminar I
AGR electives: *16 hrs*

Total Curriculum Requirements .....62 hrs
[1]AGR 199 will fulfill both the agriculture core and university studies elective.

Agriculture Minor.....21 hrs
Program must be approved by an advisor with at least six hours of level 300 or above completed at Murray State. Six hours must be upper-level courses completed in residence at Murray State University.

Department of Animal and Equine Science

212 Oakley Applied Science South
270-809-3327

Head: James Davis. **Faculty:** Davis, Delaney, Robertson, Robinson, Van Hooser.

The Department of Animal and Equine Science offers a bachelor of science in agriculture degree with three emphases: (1) food animal emphasis and (2) equine science emphasis and (3) equine management. The department also offers a minor in equine science. Career preparations include the scientific study of feeding, breeding, management and marketing of animals and their products along with the multitude of related businesses and industries.

Facilities for animal and equine science include an equine center, rodeo facilities, and a beef cattle complex including a registered Angus herd and stocker calf intensive grazing systems.

AREA: Animal Technology/ Animal/Equine Science Option

Bachelor of Science in Agriculture Degree
CIP 51.0808

University Studies Requirements ..... 44-46 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
or
BIO 221 Zoology: Animal Form and Function
MAT 140 College Algebra
and one of the following:
CHE 101 Consumer Chemistry
CHE 105 Introductory Chemistry I
CHE 201 General College Chemistry
•*Social and Self-Awareness and Responsible Citizenship:*
AGR 199 Contemporary Issues in Agriculture
•*University Studies Electives: (Choose one of the following.)*
CHE 106 Introductory Chemistry II
CHE 202 General Chemistry and Qualitative Analysis
GSC 101 The Earth and the Environment
GSC 102 Earth Through Time
GSC 199 Earth Science

Agriculture Core Courses ..... 24-25 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I
AGR 501 Diseases of Livestock
AGR 599 Agriculture Senior Capstone
and one of the following:
AGR 170 Introduction to Agricultural Systems Technology
AGR 377 Agriculture Safety
AGR 373 Animals in Disaster
and
AGR 374 Livestock in Disaster
and one of the following:
AGR 403 Equine Reproduction
AGR 506 Reproductive Physiology
AGR 523 Artificial Insemination Techniques for Cattle

Required Emphasis Courses ..... 23-24 hrs
Choose one of the following emphases.

Food Animal Emphasis
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 140 Plant Science
or
AGR 240 Crop Science
AGR 345 Soil Science
and two of the following:
AGR 311 Beef Science
AGR 321 Poultry Science
AGR 324 Veterinary Diagnostic Imaging
AGR 326 Swine Science
and one of the following:
AGR 301 Livestock Judging and Evaluation
AGR 313 Livestock Production Management Systems
AGR 320 Livestock Behavioral Analysis
AGR 402 Advanced Livestock Judging
and one of the following:
AGR 502 Advanced Nutrition
AGR 503 Animal Breeding
AGR 512 Beef Cattle Management Systems

Equine Management Emphasis
AGR 130 Agricultural Economics
AGR 133 Field Applications for Agriculture
AGR 201 Intermediate Horsemanship
AGR 302 Horse Science
AGR 304 Advanced Stock Seat
or
AGR 306 Advanced Forward Seat
AGR 308 Equine Practicum
AGR 309 Equine Facility Management
or
AGR 315 Alternative Equine Care
and one of the following:
AGR 318 Equine Forage Management
AGR 405 Breaking and Training
AGR 407 Equine Selection and Evaluation

Equine Science Emphasis
AGR 101 Basic Horsemanship
or
AGR 308 Equine Practicum
AGR 130 Agricultural Economics
AGR 240 Crop Science
AGR 302 Horse Science
AGR 303 Advanced Horse Science
AGR 309 Equine Facility Management
or
AGR 315 Alternative Equine Care
AGR 318 Equine Forage Management
AGR 345 Soil Science

Required Support Courses .....12 hrs
Choose the following support courses for the equine management or equine science emphases only:

Equine Management
AGR 330 Principles of Agribusiness
AGR 333 Agribusiness Records and Analysis
AGR 433 Farm Management
MGT 350 Fundamentals of Management

Equine Science
AGR 133 Field Applications for Agriculture
AGR 328 Statistics for Food and Agriculture

Unrestricted Electives .....13-29 hrs

Total Curriculum Requirements .....120 hrs

Equine Science Minor.....21 hrs
Program must be approved by an advisor and include nine hours of required courses (AGR 302, 303 and 401). Six hours must be selected from AGR 101, 201, 304 and 306. Six hours must be upper-level courses completed in residence at Murray State University.

Department of Animal Health Technology and Pre-Veterinary Medicine
A. Carman Animal Health Technology Center
270-809-7001

Head: Terry Canerdy. **Faculty:** Canerdy, DeWees, Doom, Papajeski, Provine, West.

The Animal Health Technology Program at Murray State University is one of only 14 schools in the nation that offers a fully accredited bachelor of science degree in the area of animal health. Students are also given the option to complete the prerequisite courses required by any of the twenty-seven veterinary schools in the U.S. The program involves hands-on experience with many animal species including small, large, and exotic animals. The program has been continually accredited by the American Veterinary Medical Association (AVMA) since 1986. Facilities for the animal health/pre-veterinary medicine program include classrooms and laboratories at the A. Carman Animal Health Technology Center and the university farms.

A portion of the animal health technology and pre-veterinary curriculum will involve students taking courses, which have been labeled the BVC (Breathitt Veterinary Center) courses. The BVC courses include AGR 340, AGR 400, AGR 410, AGR 420, and AGR 430. BVC courses must be taken together in one semester. Because the animal health technology/pre-veterinary program is an accredited program, available space is limited to ensure the quality of instruction. Registration in BVC courses is based on available openings. The animal health technology program will make every effort to ensure that students who need BVC courses will be placed, but no guarantee is made that the student will be enrolled during the preferred semester. Applications are due February 1st for the fall term and September 1st for the spring term. Once completed applications are reviewed, students will be notified of their placement into BVC courses by March 1st for the fall semester and October 1st for the spring semester.

The following prerequisites are required for the BVC classes: AGR 300, AGR 322, AGR 329, BIO 101 or 221, CHE 105 or 201, CHE 106 or 202. The student must have a passing grade in these courses before being considered. After the prerequisites have been evaluated, the following criteria will be reviewed in order to determine the student's placement into the BVC courses:

· Completed applications were submitted by the appropriate deadline.
· BVC courses are the ONLY classes remaining.
· BVC courses plus one other course are the only classes remaining.
· Unavoidable course conflicts will be evaluated on a case by case basis.
· Once the placed students are enrolled any space available will be given to students on a first come basis.

Any student who receives an *E* in any BVC course, will only be able to repeat the course if space is available.

The following courses are required by the American Veterinary Medical Association for Veterinary Technician certification: AGR 340, 400, 410, 420, 430, 511, and 550.

AREA:
Animal Technology/ Veterinary Technology Option

Bachelor of Science in Agriculture Degree
CIP 51.0808

ACCREDITED BY:
American Veterinary Medical Association

University Studies Requirements .....46-48 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 105 Introductory Chemistry I
MAT 140 College Algebra
•*Social and Self-Awareness and Responsible Citizenship:*
AGR 199 Contemporary Issues in Agriculture
•*University Studies Electives:*
CHE 106 Introductory Chemistry II

Agriculture Core Courses .....28-30 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I
AGR 501 Diseases of Livestock[1]
AGR 599 Agriculture Senior Capstone
and one of the following:
AGR 170 Introduction to Agricultural Systems Technology
AGR 377 Agriculture Safety
AGR 373 Animals in Disaster
and
AGR 374 Livestock in Disaster
and one of the following:
AGR 403 Equine Reproduction
AGR 506 Reproductive Physiology
AGR 523 Artificial Insemination Techniques for Cattle

Veterinary Technology Option[1] .....22 hrs
AGR 322 Veterinary Laboratory Principles
AGR 324 Veterinary Diagnostic Imaging
AGR 332 Animal Nursing and Radiography
AGR 510 Animal Anatomy and Physiology
AGR 540 Veterinary Surgery and Anesthesia
AGR 489 Cooperative Education/Internship
or
AGR 590 Internship in Animal Technology
BIO 300 Introductory Microbiology

Required Support Courses .....30-31 hrs
Choose one of the following support courses emphases:

Animal Health Technology Emphasis
AGR 331 Small Animal Diseases
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology[1]
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology[1]
AGR 551 Selected Studies in Agriculture

Large Animal Emphasis
AGR 313 Livestock Production Management Systems
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology[1]
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology
AGR Elective - Animal Science or Animal Health Technology
and one of the following:
AGR 302 Horse Science
AGR 311 Beef Science
AGR 326 Swine Science

Zoological Animal Health Technology Emphasis
AGR 331 Small Animal Diseases
AGR 340 Veterinary Laboratory Sciences
AGR 400 Veterinary Microbiology[1]
AGR 410 Advanced Veterinary Hematology
AGR 420 Veterinary Clinical Chemistry
AGR 430 Veterinary Parasitology
AGR 511 Animal Anatomy and Physiology Laboratory
AGR 550 Applied Pharmacology
and one of the following:
BIO 570 Ichthyology
BIO 572 Herpetology
BIO 573 Ornithology
BIO 574 Mammalogy

Total Curriculum Requirements .....120 hrs
[1]Required by American Veterinary Medical Association for certification.

AREA:
Animal Technology/Veterinary Technology/ Pre-Veterinary Medicine Option

Bachelor of Science in Agriculture Degree
CIP 51.0808

ACCREDITED BY:
American Veterinary Medical Association

University Studies Requirements .....46-52 hrs
(see Chapter 4, University Studies Requirements)

University Studies selections must include:
•*Scientific Inquiry, Methodologies, and Quantitative Skills:*
BIO 101 Biological Concepts
CHE 201 General College Chemistry
MAT 150 Algebra and Trigonometry
•*Social and Self-Awareness and Responsible Citizenship:*
PSY 180 General Psychology
SOC 133 Introduction to Sociology
•*World's Historical, Literary, and Philosophical Traditions:*
CIV 201 World Civilizations I
•*University Studies Electives:*
AGR 199 Contemporary Issues in Agriculture
CHE 202 General Chemistry and Qualitative Analysis
CIV 202 World Civilizations II

Note: 3rd year Veterinary School Applicants must also take HUM 212 and English Literature.

Agriculture Core Courses .....24-25 hrs
AGR 099 Transitions
AGR 100 Animal Science
AGR 300 Principles of Animal Nutrition
AGR 310 Applications in Animal Technology
AGR 339 Computer Applications for Agriculture
AGR 399 Professional Development Seminar I
AGR 501 Diseases of Livestock
AGR 599 Agriculture Senior Capstone
and one of the following:
AGR 170 Introduction to Agricultural Systems Technology
AGR 377 Agriculture Safety
AGR 373 Animals in Disaster
and
AGR 374 Livestock in Disaster
and two of the following:
and one of the following:
AGR 403 Equine Reproduction
AGR 506 Reproductive Physiology
AGR 523 Artificial Insemination Techniques for Cattle

Pre-Veterinary Medicine Option .....22 hrs
AGR 322 Veterinary Laboratory Principles
AGR 324 Veterinary Diagnostic Imaging
AGR 332 Animal Nursing and Radiography
AGR 510 Animal Anatomy and Physiology
AGR 540 Veterinary Surgery and Anesthesia
AGR 489 Cooperative Education/Internship
or
AGR 590 Internship in Animal Technology
BIO 300 Introductory Microbiology

Required Support Courses .....26 hrs
AGR 331 Small Animal Diseases
BIO 221 Zoology: Animal Form and Function
CHE 312 Organic Chemistry I
CHE 320 Organic Chemistry II
CHE 330 Biochemistry
PHY 130 General Physics I
PHY 131 General Physics I Laboratory
PHY 132 General Physics II
PHY 133 General Physics II Laboratory

Unrestricted Electives.....0-1 hrs

Total Curriculum Requirements .....120 hrs