



2 + 2 B.S. Degree in Animal and Dairy Sciences

Freshman and Sophomore Year Requirements (Hinds Community College)

6 Hr English Composition

Hinds Courses	Equivalent Course @ MSU
ENG 1113 English Composition I	EN 1103 English Composition I
ENG 1123 English Composition II	EN 1113 English Composition II

6 Hr Mathematics

Hinds Courses	Equivalent Course @ MSU
MAT 1313 College Algebra	MA 1313 College Algebra
Select one math course higher than College Algebra from the list below	
MAT 1323 Trigonometry	MA 1323 Trigonometry
MAT 1333 Finite Math	MA 1463 Finite & Introduction to Calculus
MAT 1513 Calculus for Business	MA 1613 Calc for Business & Life Science I
BAD 2323 Business Statistics OR MAT 2323 Statistics	BQA 2113 Business Statistical Methods I OR ST 2113 Statistics
MAT 1613 Calculus I	MA 1713 Calculus I
MAT 1623 Calculus II	MA 1723 Calculus II
MAT 2613 Calculus III	MA 2733 Calculus III
MAT 2623 Calculus IV	MA 2743 Calculus IV

3 Hr Fine Arts (select one)

Hinds Courses	Equivalent Course @ MSU
ART 1113 Art Appreciation	ART 1113 Art Appreciation
ART 2713 Art History I	ART 1013 Art History I
ART 2723 Art History II	ART 1023 Art History II
SPT 1213 Fundamentals of Theatre	CO 1503 Introduction to Theatre
MUS 1113 Music Appreciation	MU 1113 History & Appreciation of Music

3 Hr Oral Communications

Hinds Courses	Equivalent Course @ MSU
SPT 1113 Oral Communication	CO 1003 Fundamentals of Public Speaking

3 Hr Computer Literacy

Hinds Courses	Equivalent Course @ MSU
CSC 1113 Introduction to Computer Concepts	TKT 1273 Computer Applications

6 Hr Humanities (select two)

Hinds Courses	Equivalent Course @ MSU
ENG 2223 American Literature I	EN 2243 American Literature I
ENG 2233 American Literature II	EN 2253 American Literature II
ENG 2323 English Literature I	EN 2213 English Literature I
ENG 2333 English Literature II	EN 2223 English Literature II
ENG 2423 World Literature I	EN 2273 World Literature I
ENG 2433 World Literature II	EN 2283 World Literature II
HIS 2213 American (US) History I	HI 1063 Early US History
HIS 2223 American (US) History II	HI 1073 Modern US History
HIS 1113 Western Civilization I	HI 1213 Early West World
HIS 1123 Western Civilization II	HI 1223 Modern West World
MFL 1213 Elementary Spanish I	FLS 1113 Spanish I
MFL 1223 Elementary Spanish II	FLS 1123 Spanish II
MFL 2213 Intermediate Spanish I	FLS 2133 Spanish III
PHI 2113 Introduction to Philosophy I	PHI 1103 Introduction to Philosophy
PHI 2713 Logic	PHI 1113 Introduction to Logic

6 Hr Social/Behavioral Sciences (select two)

Hinds Courses	Equivalent Course @ MSU
PSY 1513 General Psychology I	PSY 1013 General Psychology
SOC 2113 Introduction to Sociology	SO 1003 Introduction to Sociology
SOC 2133 Social Problems	SOC 1103 Contemporary Social Problems
SOC 2143 Marriage and Family	SO 1203 Marriage and Family
GEO 1113 World Geography	GR 1123 Introduction to World Geography
PSC 1113 American National Government	PS 1113 American Government
ECO 2113 Macroeconomics	EC 2113 Principles of Macroeconomics
ECO 2123 Microeconomics	EC 2123 Principles of Microeconomics
EPY 2513 Human Growth & Development	EPY 2513 Human Growth & Development
PSC 2113 Comparative Government	PS 1513 Comparative Government
AGR 2713 Principles of Agricultural Econ	AEC 2713 Food and Resource Economics

28 Hr Science

Hinds Courses	Equivalent Course @ MSU
AGR 1214 Animal Science	ADS 1114 Animal Science
CHE 2423 Organic Chemistry	CH 2503 Organic Chemistry
CHE 2421 Organic Chemistry Lab	CH 2501 Organic Chemistry Lab
CHE 1213 General Chemistry I	CH 1213 Chemistry I
CHE 1211 General Chemistry I Lab	CH 1211 Investigations in Chemistry I
CHE 1223 General Chemistry II	CH 1223 Chemistry II
CHE 1221 General Chemistry II Lab	CH 1221 Investigations in Chemistry II
BIO 2923 Microbiology	BIO 3304 General Microbiology
BIO 2931 Microbiology Lab	
BIO 2413 Principles of Zoology I	BIO 1504 Principles of Zoology
BIO 2411 Principles of Zoology I Lab	
PHY 2414 General Physics I and Lab (Students selecting Science concentration)	PH 1113 General Physics I
<u>OR 4 Hr General Elective (Students selecting Meat, Equine, or Dairy Concentration)</u>	

61 Total hours to transfer to Mississippi State University
Junior and Senior Year Requirements (Mississippi State University)

[Choose from one of four Animal and Dairy Sciences concentration areas (Science, Meat, Equine, or Dairy)]

A. SCIENCE CONCENTRATION

36-37 Hr Core Requirements

BCH 4013 OR 4603 Biochemistry	ADS 4115 Animal Nutrition
ADS 4123 Animal Breeding	ADS 4613 & 4611 Physiology of Reproduction
ADS 4221 Senior Seminar	BIO/PO 3103 Genetics
BIO 4413 Immunology	VS 3014 Anatomy & Physiology
ADS 4623 Physiology of Lactation	
ADS 4423 Internship or 3312 OR Livestock Management	
ADS 4314 Meat Processing OR FNH 4164 QA Food Production	

5-7 Hr Production electives (select two)

ADS 4323 Beef Cattle Science	ADS 4113 Swine Science
ADS 3223 Horse Management	ADS 4814 Dairy Farm Management
ADS 4222 Small Ruminant & Diversified Livestock Production	

2-3 Hr Evaluation electives (select one)

.ADS 2122 Advanced Equine Evaluation	ADS 3142 Meats Judging I
ADS 3213 Performance Analysis of Meat Animals	ADS 3813 Dairy Cattle Appraisal
ADS 4212 Livestock Evaluation	ADS 4232 Advanced Livestock Evaluation
FNH 2112 Food Product Evaluation	ADS 2102 Equine Conforma & Performance Eval

6-8 Hr Science electives (select two)

ADS 4333 Equine Exercise Physiology	BCH 4613 General Biochemistry
BIO 2103 Cell Biology	BIO 3104 Ecology
BIO 3113 Marine Biology	BIO 3303 Parasitology
BIO 3504 Comparative Anatomy	BIO 3524 Biology of Vertebrates
BIO 4103 Experimental Genetics	BIO 4113 Evolutionary Biology
BIO 4114 Cellular Physiology	BIO 4404 Environmental Microbiology
BIO 4405 Pathogenic Microbiology	BIO 4414 Microbiology of Foods
BIO 4433 Principles of Virology	BIO 4502 Toxicology
BIO 4503 Vertebrate Histology	BIO 4504 Comparative Vertebrate Embryology
BIO 4513 Ichthyology	BIO 4514 Animal Physiology
BIO 4523 Mammalogy	BIO 4543 Ornithology
CVM 4513 Environmental Toxicology	CVM 4523 Basic Neuroscience
PH 1123 General Physics II	PO 4843 Avian Physiology

8-14 Hr Free electives to bring total to 63 hours at MSU

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B. EQUINE CONCENTRATION

18-19 Hr Core Requirements

BCH 4013 OR 4603 Biochemistry	ADS 4115 Nutrition
ADS 4123 Animal Breeding	ADS 4613 & 4611 Physiology of Reproduction
ADS 4423 Internship OR 3312 Livestock Manag	ADS 4221 Senior Seminar

20 Hr Required Equine Courses

ADS 2102 Equine Conf. & Performance Eval	ADS 3223 Horse Management
ADS 4213 Nutrient Reqt. & Formulation	ADS 4333 Equine Exercise Physiology
ADS 4412 Managing Livestock Sales I	PSS 4103 Forage & Pasture Crops
ADS 4314 Meats Processing or FNH 4164 Quality Assurance of Foods	

2-3 Hr Riding Elective (select one)

ADS 1132 Introduction to Horsemanship	ADS 2212 Equine Behavior & Training
ADS 2312 Advanced Horsemanship	ADS 3233 Equine Assisted Therapy

B. EQUINE CONCENTRATION (cont.)

5-7 Hr Production Electives (select two)

ADS 4113 Swine Science

ADS 4323 Beef Cattle Science

ADS 4222 Small Ruminant Livestock Production

ADS 4814 Dairy Farm Management

2-3 Hr Evaluation electives (select one)

ADS 2122 Advanced Equine Evaluation

ADS 3213 Performance Analysis of Meat Animals

ADS 4212 Livestock Evaluation

FNH 2112 Food Product Evaluation

ADS 3142 Meats Judging I

ADS 3813 Dairy Cattle Appraisal

ADS 4232 Advanced Livestock Evaluation

12-13 Hr Business electives (select four)

AEC 2713 Intro to Food & Resource Economics

AEC 3213 International Trade in Agriculture

AEC 3413 Intro to Food Marketing

ACC 2013 Prin of Financial Accounting

EC 2123 Prin of Microeconomics

AEC 3133 Intro to Agribusiness Management

AEC 3233 Intro to Environmental Economics

AEC 4123 Financial & Commod Futures Marketing

EC 2113 Prin of Macroeconomics

MGT 3114 Prin of Management & Production

0-4 Hr Free electives to bring total to 63 hours at MSU

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C. DAIRY CONCENTRATION

18-19 Hr Core Requirement

BCH 4013 **OR** 4603 Biochemistry

ADS 4123 Animal Breeding

ADS 4221 Senior Seminar

ADS 4115 Nutrition

ADS 4613 & 4611 Physiology of Reproduction

ADS 4423 Internship **OR** 3312 Livestock Manag

22 Hr Required Dairy Courses

ADS 3813 Dairy Cattle Appraisal

ADS 4412 Managing Livestock Sales I

ADS 4814 Dairy Farm Management

ADS 4314 Meats Processing **OR** FNH 4164 Quality Assurance of Foods

ADS 4213 Nutrient Reqt. & Formulation

ADS 4623 Physiology of Lactation

PSS 4103 Forage & Pasture Crops

5-6 Hr Production Electives (select two)

ADS 3223 Horse Management

ADS 4222 Small Ruminant Livestock Production

ADS 4113 Swine Science

ADS 4323 Beef Cattle Science

2-3 Hr Evaluation electives (select one)

ADS 2122 Advanced Equine Evaluation

ADS 3213 Performance Analysis of Meat Animals

ADS 4232 Advanced Livestock Evaluation

FNH 2112 Food Product Evaluation

ADS 3142 Meats Judging I

ADS 4212 Livestock Evaluation

ADS Dairy Cattle Judging

ADS 2102 Equine Conform and Perform Eval

12-13 Hr Business electives (select four)

AEC 2713 Intro to Food & Resource Economics

AEC 3213 International Trade in Agriculture

AEC 3413 Intro to Food Marketing

ACC 2013 Prin of Financial Accounting

EC 2123 Prin of Microeconomics

AEC 3133 Intro to Agribusiness Management

AEC 3233 Intro to Environmental Economics

AEC 4123 Financial & Commod Futures Marketing

EC 2113 Prin of Macroeconomics

MGT 3114 Prin of Management & Production

0-4 Hr Free electives to bring total to 63 hours at MSU

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D. MEAT ANIMAL CONCENTRATION

18-19 Hr Core Requirements

BCH 4013 OR 4603 Biochemistry	ADS 4115 Animal Nutrition
ADS 4123 Animal Breeding	ADS 4613 & 4611 Physiology of Reproduction
ADS 4423 Internship or 3312 or Livestock Manag	ADS 4221 Senior Seminar

18 Hr Required Meat Courses

ADS 4213 Nutrient Reqt. & Formulation	ADS 4412 Managing Livestock Sales I
PSS 4103 Forage & Pasture Crops	ADS 4323 Beef Cattle Science
ADS 4113 Swine Science	ADS 3213 Performance Analysis of Meat Animals
ADS 4314 Meats Processing	

2-4 Hr Production Electives (select one)

ADS 3223 Horse Management	ADS 4814 Dairy Farm Management
ADS 4222 Small Ruminant & Diversified Livestock Prod	

2-3 Hr Evaluation electives (select one)

ADS 2122 Advanced Equine Evaluation	ADS 3142 Meats Judging I
ADS 3813 Dairy Cattle Appraisal	ADS 4212 Livestock Evaluation
ADS 4232 Advanced Livestock Evaluation	FNH 2112 Food Product Evaluation
ADS 2102 Equine Conformation & Performance Eval.	

13-14 Hr Business electives (select four)

AEC 2713 Intro to Food & Resource Economics	AEC 3133 Intro to Agribusiness Management
AEC 3213 International Trade in Agriculture	AEC 3233 Intro to Environmental Economics
AEC 3413 Intro to Food Marketing	AEC 4123 Financial & Commod Futures Marketing
ACC 2013 Prin Financial Accounting	EC 2113 Prin Macroeconomics
EC 2123 Prin Microeconomics	MGT 3114 Prin of Management & Production

5-10 Hr Free electives to bring total to 63 hours at MSU

63 Total hours completed at MSU

61 Total hours transferred to Mississippi State University from Hinds Community College

63 Total hours completed at Mississippi State University

124 Total hours required for Bachelor of Science degree in Animal and Dairy Sciences

**Students must take at least half of their degree program at Mississippi State University.*

Use the following to certify that a student is agreeing to participate in the 2 + 2 Program.

Student Signature

Date

Hinds Academic Advisor/Coordinator

Date