

**AGRICULTURE FORWARD ADVISING GUIDE**  
**Certificate in Sustainable Agriculture**  
**to Bachelor of Science in Animal Science (Animal Care & Management)**

This is a sample four-year academic plan for an Agriculture Forward student in the College of Agriculture and Natural Resources at the University of Maryland, College Park. An individualized plan will be created with each student based on math placement, transfer credits, and other academic considerations.

<b><u>1st YEAR, FALL SEMESTER</u></b>		<b>Credit Hours</b>	<b>Plan</b>	<b>Taken</b>	<b>Grade</b>
ANSC 101/103	Principles of Animal Science/Lab	4	___	___	___
ENGL 101	Academic Writing † FSAW	3	___	___	___
INAG 123	People, Planet, & Profit † DSSP/IS	3	___	___	___
_____*	_____ INAG business course	3	___	___	___
MATH 113	College Algebra and Trigonometry † FSMA	3	___	___	___
UNIV 100	The Student in the University	<u>1</u>	___	___	___
		<b>17</b>		___	___ GPA

<b><u>1st YEAR, SPRING SEMESTER</u></b>					
BSCI 170/171	Principles of Molecular & Cell Bio/Lab † DSNL	4	___	___	___
CHEM 131/132	Fundamentals of General Chemistry † DSNL	4	___	___	___
INAG 106	Pesticide Use & Safety	2	___	___	___
INAG 110	Oral Communication † FSOC	3	___	___	___
MATH 120	Elementary Calculus I † FSAR	3	___	___	___ OR
MATH 140	Calculus I † FSAR	<u>3</u>	___	___	___
		<b>16</b>		___	___ GPA

**SUMMER BETWEEN 1st and 2nd YEARS**

INAG 288	Agricultural Practicum	<b>1</b>	___	___	___
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**2nd YEAR, FALL SEMESTER**

ANSC 204/205	Anatomy of Domestic Animals/Lab	4	___	___	___
BSCI 160/161	Principles of Ecology & Evolution/Lab	4	___	___	___
CHEM 231	Organic Chemistry I	3	___	___	___ OR
PLSC 275	Fundamentals of Agricultural Chemistry	3	___	___	___
INAG 289	Internship	<u>3</u>	___	___	___
		<b>14</b>		___	___ GPA

**2nd YEAR, SPRING SEMESTER**

ANSC 212/214	Applied Animal Physiology/Lab	4	___	___	___
ANSC 2___**	_____	3	___	___	___
_____*	_____ INAG business course	3	___	___	___
INAG 248	Topics in Sustainable Agriculture	1	___	___	___
INAG 105	Soils and Fertilizers	3	___	___	___
_____	_____ † DSHU	<u>3</u>	___	___	___
		<b>17</b>		___	___ GPA

**3rd YEAR, FALL SEMESTER**

ANSC 314	Comparative Animal Nutrition	3	___	___	___
AREC 250	Elem. of Agricultural & Resource Econ. † DSHS	3	___	___	___ OR
ECON 200	Principles of Microeconomics † DSHS	3	___	___	___

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ENGL 39__	Professional Writing † FSPW	3	___	___	___	
AREC 306*	Farm Mgmt/Sust. Food Prod. † DSSP	3	___	___	___	OR
ANSC 270*	Animal Enterprise Management	3	___	___	___	OR
INAG 204 (offered in the spring)						
INAG 250	Fundamentals of Agricultural Mechanics	<u>3</u>	___	___	___	
		<b>15</b>			___	GPA

**3rd YEAR, SPRING SEMESTER**

ANSC 315	Applied Animal Nutrition	3	___	___	___	
ANSC 2__**	_____	3	___	___	___	
ANSC 2__**	_____	3	___	___	___	
BSCI 223	General Microbiology † DSNS/IS	4	___	___	___	
_____	_____ † DSHS/UP	<u>3</u>	___	___	___	
		<b>16</b>			___	GPA

\* Completion of IAA Certificate Requirements \*

**4th YEAR, FALL SEMESTER**

ANSC 446/447	Physiology of Mammalian Reproduction/Lab	4	___	___	___	
ANSC ___***	_____	3	___	___	___	
ANSC ___***	_____	3	___	___	___	
BIOM 301	Introduction to Biometrics † FSAR (suggested elective)	3	___	___	___	
_____	_____ † DSHU/UP	<u>3</u>	___	___	___	
		<b>16</b>			___	GPA

**4th YEAR, SPRING SEMESTER**

ANSC 327	Molecular and Quantitative Animal Genetics	3	___	___	___	OR
ANSC 450	Animal Breeding Plans (3 credits, offered in the fall)		___	___	___	
ANSC 340	Health Mgmt of Animal Populations † DSSP	3	___	___	___	
ANSC ___***	_____	3	___	___	___	
ANSC ___***	_____	3	___	___	___	
_____	_____ † DSSP if needed	<u>3</u>	___	___	___	
		<b>15</b>			___	GPA

**TOTAL CREDITS 127**

\* Student must complete three INAG business courses (choices: INAG 102, 103, 201, 203, 204 or equivalent, 205, 206). The Animal Science degree also requires *either* INAG 204 or one of its equivalents—ANSC 270 or AREC 306—so students should include one of these to count toward the certificate.

\*\* Students may choose any approved ANSC management course: ANSC 220, 232, 237, 242, 250, 255, 260, 262, 282. Year 2 benchmarks include one of: 220, 232, 242, 250, 255, 260, 262.

\*\*\* Students may choose any approved advanced ANSC elective: 330, 340, 417, 435, 437, 440, 443, 444, 446, 447, 450, 452, 453, 455, 460, 489A, 489C, 489M, 489O, 489Q, 497

† General Education Requirement. Distributive Studies courses: student must take two each from HS (history/social sciences); HU (humanities); NS/NL (natural sciences; one must include a lab); and SP (Scholarship in Practice; one of these must be from outside the student's major). Among those eight courses, two must be I-Series courses and two must be Diversity courses (at least one of which must be an Understanding Plural Societies course).

Advised by: \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_

Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_ Date \_\_\_\_\_

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## Ag Forward Advising Checklist for Sustainable Agriculture Students

To earn a Certificate in Applied Agriculture, Ag Forward students must complete **60 credits** in accordance with the requirements listed below.

### Fundamental Studies (9 credits)

- INAG 110 Oral Communication (3)
- ENGL 101 Academic Writing (3)
- MATH 113 College Algebra and Trigonometry (3) or higher

### Fundamental Agricultural Science (4 credits)

*One course from the following list:*

- INAG 100 Introduction to Plant Science (4)
- PLSC 100 Introduction to Horticulture (4)
- PLSC 101 Introductory Crop Science (4)
- ANSC 101 & 103 Principles of Animal Science & Lab (4)
- NFSC 100 Elements of Nutrition (3)

### Applied Agriculture (16 credits)

*One course from the following list:*

- INAG 105 Soils and Fertilizers (3)
- ENST 200 Fundamentals of Soil Science (4)

*All of the following courses:*

- INAG 106 Pesticide Use and Safety (2)
- INAG 123 Introduction to Sustainable Agriculture (3)
- INAG 248 Topics in Sustainable Agriculture (1)
- INAG 250 Fundamentals of Agricultural Mechanics (3)
- INAG 288 Agricultural Practicum (1)
- INAG 289 Internship (3)

### Business Management (9 credits)

*Three courses from the following list:*

- INAG 102 Agricultural Entrepreneurship (3)
- INAG 103 Agricultural Marketing (3)
- INAG 201 Agricultural Human Resource Management (3)
- INAG 203 Agricultural Finance (3)
- INAG 204 Agricultural Business Management (3)
- INAG 205 Analyzing Alternative Enterprises (3)
- INAG 206 Agricultural Business Law (3)
- ANSC 270 Animal Enterprise Management (3)

### Agriculture and Natural Resources (22+ credits) with advisor approval:

- ANSC 204/205: Anatomy of Domestic Animals/Lab (4)
- ANSC 212/214: Applied Animal Physiology/Lab (4)
- ANSC 314: Comparative Animal Nutrition (3)
- ANSC 315: Applied Animal Nutrition (3)
- ANSC management elective (3)
- ANSC management elective (3)
- ANSC management elective (3)