

# AGRICULTURAL SCIENCES MAJOR WITH TEACHING AND LEARNING OPTION

## Program Curriculum

Code	Title	Credits
<b>Degree Core Requirements</b>		
ALS 1234	CALS First Year Seminar	1
ALCE 3004	Educational Programs in Agricultural and Life Sciences <sup>1</sup>	3
LDRS 1414	Citizen Leadership <sup>1</sup>	3
ALCE 3624	Communicating Ag and Life Sciences in Writing <sup>1</sup>	3
ALCE 3634	Communicating Ag and Life Sciences in Speaking <sup>1</sup>	3
ALCE 4034	Methods of Planning Education Programs for Agriculture <sup>1,2</sup>	3
ALCE 4044	Agricultural Sciences Seminar <sup>1</sup>	3
Subtotal		19
<b>Major Requirements</b>		
<i>A. Disciplinary Core Courses</i>		
ALCE 2964	Field Study <sup>1</sup>	3
ALCE 4024	Managing Agricultural Supervised Occupational Experience Project <sup>1</sup>	2
ALCE 4244	Teaching and Training Methods in Agricultural and Life Sciences <sup>1,2</sup>	3
ALCE 4754	Internship in Education <sup>1</sup>	3
ALCE 4064	Ag Mechanical Lab Management <sup>1</sup>	3
ALCE 4234	Curriculum for Career and Occupational Education <sup>1,2</sup>	3
ALCE 4884	Youth Program Management <sup>1</sup>	3
BSE 2094		1
BSE 2484	<sup>2</sup>	3
EDCI 3144	Education of Exceptional Learners	3
<i>B. Restricted Electives</i>		
Select 9 credit hours <sup>3</sup>		9
Subtotal		36
<b>Area of Specialization</b>		
Select 18 credit hours <sup>4</sup>		18
Subtotal		18
<b>Free Electives</b>		
Select 3 credit hours (or balance to 120 credit hours) <sup>5</sup>		0
Subtotal		0
<b>Pathways to General Education</b>		
<i>Pathways Concept 1 - Discourse</i>		
ENGL 1105	First-Year Writing (1F)	3
ENGL 1106	First-Year Writing (1F)	3
ALCE 2414	Identity and Inclusion in Agricultural and Life Sciences (1A) <sup>1,2</sup>	3
<i>Pathways Concept 2 - Critical Thinking in the Humanities</i>		
Select 6 credit hours in Pathway 2 ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G02</a> )		6

<i>Pathways Concept 3 - Reasoning in the Social Sciences</i>		
AAEC 1005	Economics of the Food and Fiber System	3
AAEC 1006	Economics of the Food and Fiber System	3

<i>Pathways Concept 4 - Reasoning in the Natural Sciences</i>		
Select one of the following:		
8		

BIOL 1105	Principles of Biology	
& BIOL 1115	and Principles of Biology Laboratory	
& BIOL 1106	and Principles of Biology	
& BIOL 1116	and Principles of Biology Laboratory	
CHEM 1015	Chemistry in Context	
& CHEM 1025	and Introduction to Chemistry Laboratory	
& CHEM 1016	and Chemistry in Context	
& CHEM 1026	and Introduction to Chemistry Laboratory	
GEOS 1004	Earth Science: Our Past, Present, and Future	
& GEOS 1104	and Introduction to Earth Sciences Laboratory	
& GEOS 1024	and Earth Resources, Society, and Environment	
& GEOS 1124	and Earth Resources, Society and Environment Laboratory	

<i>Pathways Concept 5 - Quantitative and Computational Thinking</i>		
MATH 1014	Precalculus with Transcendental Functions (5F)	3
STAT 2004	Introductory Statistics (5F) <sup>2</sup>	3

Select 3 credits in Pathway 5a ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G05A">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G05A</a> )		3
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<i>Pathways Concept 6 - Critique and Practice in Design and the Arts</i>		
Select 3 credits in Pathway 6d ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06D</a> )		3

Select 3 credits in Pathway 6a ( <a href="https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A">https://catalog.vt.edu/course-search/?attrs_pathways=attrs_pathways_G06A</a> )		3
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<i>Pathways Concept 7 - Critical Analysis of Identity and Equity in the United States</i>		
ALCE 2414	Identity and Inclusion in Agricultural and Life Sciences <sup>1,2</sup>	3

Subtotal		47
<b>Total Credits</b>		<b>120</b>

<sup>1</sup> **In-Major GPA:** Indicates in-major courses for purposes of calculating in-major GPA

<sup>2</sup> Some courses listed on this checksheet may have prerequisites; please consult the University Course Catalog or check with your advisor.

<sup>3</sup> AGSC advisor must approve content area elective courses and the student must file a *content area electives form* with the Department of Agricultural, Leadership, and Community Education undergraduate office. Students must choose courses from the following areas:

- Agricultural and Life Science (ALS),
- Agricultural and Applied Economics (AAEC),
- Animal and Poultry Science (APSC),
- Biochemistry (BCHM),
- Biological Systems Engineering (BSE),
- Crops, Soils, and Environmental Science (CSSES),
- Dairy Science (DASC),
- Environmental Science (ENSC),
- Entomology (ENT),
- Fisheries and Wildlife (FIW),
- Food Science and Technology (FST),
- Forestry (FREC),
- Human Nutrition Food and Exercise (HFNE),

- Horticulture (HORT),
- Leadership and Social Change (LDRS),
- Plant Pathology and Weed Science (PPWS).

Students seeking teacher licensure need to have three credit-hours in the following content areas:

1. Agricultural Economics and Management (AAEC),
2. Animal Science (APSC, DASC),
3. Agricultural Mechanics (ALCE, BSE),
4. Forestry/Wildlife Management (FIW/FREC),
5. Horticulture (HORT), and
6. Plant Sciences (CSES).

<sup>4</sup> AGSC advisor must approve area of specialization courses and the student must file an *area of specialization form* with the Department of Agricultural, Leadership, and Community Education undergraduate office. Students may either choose an approved minor to fulfill this requirement, or complete at least 15 hours at the 3000 level or higher. Approved minors include:

- Academic Programs (CAFS, IAG, IHW)
- Agricultural and Applied Economics (AAEC: ABAE, EECO, DAIT, AEMN)
- Agricultural, Leadership, and Community Education (ALCE: ILRM)
- Animal and Poultry Science (APSC: APSC, EPEQ)
- Dairy Science (DASC)
- Entomology (ENT)
- Food Science and Technology (FST)
- Forest Resources and Environmental Conservation (FREC: FORS, UACF, WSM)
- Plant and Environmental Sciences (SPES: CSES, ENSC, HORT, TRFM, VITI, WESC)
- Sustainable Biomaterials (SBIO)

If a minor is not selected, students must choose courses from the following areas for their area of specialization:

- Agricultural and Life Science (ALS),
- Agricultural and Applied Economics (AAEC),
- Animal and Poultry Science (APSC),
- Biochemistry (BCHM),
- Biological Systems Engineering (BSE),
- Crops, Soils, and Environmental Science (CSES),
- Dairy Science (DASC),
- Education, Curriculum and Instruction (EDCI),
- Education Psychology (EDEP),
- Environmental Science (ENSC),
- Entomology (ENT),
- Fisheries and Wildlife (FIW),
- Food Science and Technology (FST),
- Forestry (FOR),
- Human Nutrition Food and Exercise (HFNE),
- Horticulture (HORT),
- Leadership and Social Change (LDRS),
- Plant Pathology and Weed Science (PPWS),
- School of Plant and Environmental Sciences (SPES).

<sup>5</sup> Students seeking teacher licensure must dual enroll in the Secondary Education, Agriculture (AGED) program in the School of Education at Virginia Tech.

**Prerequisites:** Some courses required for this major have prerequisites. Please refer to the Undergraduate Course Catalog or consult your advisor for information about prerequisites.

**Foreign Language:** Requires 2 years of high school study in the same language (equivalent to 1105).

Has foreign language requirement been completed? (Yes/No)  
 Courses taken at Virginia Tech to complete the foreign language requirement will not count toward graduation.

**Satisfactory Progress:** By the end of the academic year in which the student has attempted 72 hours (including transfer, advanced placement, advanced standing and credit by examination), "satisfactory progress" will consist

1. GPA of at least 2.0;
2. at least 24 credits that apply to the University Core, and
3. 9 credit credits of departmental requirements.

**Minimum Overall GPA Required for Graduation: 2.00**

**Minimum In-Major GPA Required for Graduation: 2.00**