

Pathways to General Education and CALS Requirements [47 credits]**Concept 1 (9 credits)**

1f – Foundational Discourse

ENGL 1105	First Year Writing	[3]
ENGL 1106	First Year Writing	[3]

1a – Advanced/Applied Discourse

		[3]
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Concept 2 – Critical Thinking in the Humanities (6 credits)

		[3]
		[3]

Concept 3 – Reasoning in the Social Sciences (6 credits)

AAEC 1005 or ECON 2005	Economics of the Food and Fiber System or Principles of Economics	[3]
AAEC 1006 or ECON 2006	Economics of the Food and Fiber System or Principles of Economics	[3]

Concept 4 – Reasoning in the Natural Sciences (8 credits)

BIOL 1105 BIOL 1115 Or BIOL 1005 BIOL 1015	Principles of Biology Principles of Biology Lab or General Biology General Biology Lab	[3] [1]
BIOL 1106 BIOL 1116 Or BIOL 1006 BIOL 1016	Principles of Biology Principles of Biology Lab or General Biology General Biology Lab	[3] [1]

Concept 5 (9 credits)

5f – Foundational Quantitative and Computational Thinking

MATH 1014 or MATH 1025 or MATH 1225	Precalculus with Transcendental Functions (3 credits) or Elementary Calculus (3 credits) or Calculus of a Single Variable (4 credits)	[3]
STAT 2004 Or STAT 3005 Or STAT 3615	Introductory Statistics Pre: MATH 1014 or MATH 1025 or MATH 1225 or MATH 1524 or MATH 1525 Or Statistical Methods Pre: MATH 1205 or MATH 1225 Or Biological Statistics Pre: MATH 1205 or MATH 1525 or MATH 1225 or MATH 1025 or MATH 1524 or ISC 1104	[3]

5a – Advanced/Applied Quantitative and Computational Thinking

ALS 3104 ¹	Animal Breeding and Genetics PRE: BIOL 1105, (STAT 2004 or STAT 3005 or STAT 3615), (APSC 1454 or DASC 2474 or DASC 2484) (3 credits)	[3]
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1 "in major" GPA courses indicated

Concept 6 (6 credits)

6a – Critique Practice in the Arts

		[3]
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6d – Critique and Practice in Design

		[3]
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Concept 7 – Critical Analysis of Identity and Equity in the United States (3 credits)

		[3]
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Dairy Science Common Degree Core [27 credits]**Fall Spring**

		Fall	Spring
Chemistry Requirement			
CHEM 1015	Chemistry in Context	[3]	
CHEM 1016	Chemistry in Context		[3]
or			
CHEM 1035	General Chemistry	[3]	
CHEM 1036	General Chemistry		[3]
ALS 2304 ² PRE: BIOL 1106	Animal Physiology and Anatomy	[4]	
ALS 3204 ² PRE: ALS 2304, (CHEM 1036 or CHEM 1036H or CHEM 1016)	Animal Nutrition and Feeding	[3]	
ALS 3304 ² PRE: ALS 2304	Physiology of Reproduction	[3]	
DASC 2474 ²	Dairy Science and Industry		[3]
DASC 2664 ²	Prof Discourse & Career Development	[1]	
DASC 3474 ² (Junior standing. Pre: DASC 2474)	Dairy Information Systems	[3]	
DASC 4374 ² (Pre: ALS 2304)	Physiology of Lactation		[3]
DASC 4664 ² (Pre: DASC 2664)	Translating Dairy Science	[1]	

TOTAL GENERAL REQUIREMENT CREDITS**74****Satisfactory Progress Toward Degree**

- A. After completion of 30 Virginia Tech semester credits: 3 semester credits of DASC courses
- B. After completion of 36 semester credits¹: 12 semester credits in any area of the Pathways to General Education
- C. After completion of 72 semester credits¹: 24 semester credits in any area of the Pathways to General Education, 6 semester credits of DASC courses; at least 9 semester credits of in-major courses
- D. After 96 semester credits: In-major GPA of at least 2.00, Overall GPA of at least 2.00

2.00 minimum overall and in-major GPAs are required for graduation.

Prerequisite: Some courses listed on this checksheet may have prerequisites; please consult the University Course Catalog or check with your advisor.

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- 1 Includes credits completed at Virginia Tech, transfer credits, advanced placement & standing, credit by exam, and course withdrawal
 - 2 "in major" GPA courses indicated
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Student must have completed 2 years of High School Foreign Language OR 6 credits of University Foreign Language. Credits do not count towards graduation requirements.

Dairy electives [Choose minimum 9 credits]**Fall Spring**

		Fall	Spring
DASC 1464 ¹	Dairy Cattle Handling	[1]	
DASC 1574 ¹	Dairy Science First Year Experience	[1]	
DASC 2204 ¹ (Pre: AAEC 1005)	Entrepreneurship in Animal Agriculture	[3]	
DASC 2484 ¹	Dairy Cattle Evaluation		[2]
DASC/APSC 3134 ¹	Animal Agriculture and the Environment		[3]
DASC 3274 ¹ (Co: ALS 3204)	Applied Dairy Cattle Nutrition	[3]	
DASC 4174 ¹ (Pre: ALS 3104)	Applied Dairy Cattle Genetics		[3]
DASC 4274 ¹ (Co: DASC 3274)	Dairy Ration Formulation	[1]	
DASC/APSC 4304 ¹ (Pre: ALS 2304)	Bovine Reproduction Practices	[2]	
DASC 4474 ¹ (Pre: DASC 3474, ALS 3204, ALS 3304. Co: 4475)	Advanced Dairy Management Evaluation		[2]
DASC 4475 ¹ (Pre: DASC 2474)	Dairy Enterprise Management		[3]
DASC 4476 ¹ (Pre: 3474, (4475 OR AAEC 3454))	Dairy Enterprise Management	[3]	
DASC 4974 ¹ or DASC 4994 ¹	Independent study or Undergraduate research (maximum of 3 credits)	[]	[]

Option Science / Pre-Vet Requirements [25 credits minimum]:**Take all of the following.**

CHEM 1025, 1026 OR 1045, 1046 [P4]	Chem in Context LAB or Gen Chem LAB	[1]	[1]
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Select at least 23 credits

BCHM 2024 (Pre: CHEM 2514 or CHEM 2535)	Concepts of Biochemistry	[3]	
BCHM 3XXX OR 4XXX	ANY BCHM at the 3000 level or higher		
BIOL 2XXX OR 3XXX OR 4XXX	ANY Biology at the 2000 level or higher	[]	[]
CHEM 2XXX OR 3XXX OR 4XXX	ANY Chemistry at the 2000 level or higher	[]	[]
PHYS 2205 (Pre: MATH 1016 or MATH 1016H or MATH 1025 or MATH 2015 or MATH 1026 or MATH 1205 or MATH 1205H or MATH 1525 or MATH 1535 or MATH 1225 or MATH 1225H)	General Physics	[3]	
PHYS 2206 (Pre: PHYS 2305 or 2205)	General Physics		[3]
PHYS 2215 (Co: 2205)	General Physics LAB	[1]	
PHYS 2216 (Co: 2206)	General Physics LAB		[1]
DASC 4994 ²	Undergraduate Research (maximum of 3 credits)	[]	[]

Minimum Total Option Credits**34****Free Electives [Number needed to complete 120 credits]:**

		[]	[]
		[]	[]
		[]	[]

MINIMUM DASC CREDITS REQUIRED FOR GRADUATION 20**TOTAL CREDITS REQUIRED FOR GRADUATION 120**

1 "in major" GPA courses indicated

2 DASC 4994 can be used to meet Option requirements or count toward Dairy Electives, but not both.