

DASC: DUAL

College of Agriculture & Life Sciences  
Bachelor of Science  
Dairy Science (DASC) Major  
**Dual Emphasis (DUAL) Option**

For Students Date of Entry under UG Catalog **2021-2022**

**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

ENGL 3764	Technical Writing (Pre: 1106 or 1204 or COMM 1016)	[3]
Qualifying unlisted courses may be substituted		

**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 (Pre: 2005)	[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	Introductory Statistics Pre: MATH 1014 or MATH 1025 or MATH 1225 or MATH 1524 or MATH 1525	[3]

5a – Advanced/Applied Quantitative and Computational Thinking

ALS 3104 <sup>1</sup>	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

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**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*

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 <sup>2</sup> PRE: BIOL 1106	Animal Physiology and Anatomy	[4]	
ALS 3204 <sup>2</sup> PRE: 2304, (CHEM 1036 or CHEM 1036H or CHEM 1016)	Animal Nutrition and Feeding	[3]	
ALS 3304 <sup>2</sup> PRE: ALS 2304	Physiology of Reproduction	[3]	
DASC 2474 <sup>2</sup>	Dairy Science and Industry		[3]
DASC 2664 <sup>2</sup>	Prof Discourse & Career Development	[1]	
DASC 3474 <sup>2</sup> (PRE: DASC 2474)	Dairy Information Systems	[3]	
DASC 4374 <sup>2</sup> (PRE: ALS 2304)	Physiology of Lactation		[3]
DASC 4664 <sup>2</sup> (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 credits<sup>1</sup>: 12 semester credits in any area of the Pathways to General Education
- C. After completion of 72 semester credits<sup>1</sup>: 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.

- 1 Includes credits completed at Virginia Tech, transfer credits, advanced placement & standing, credit by exam, and course withdrawal
- 2 "in major" GPA courses indicated

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.

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Bachelor of Science in Dairy Science

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<b>Dairy electives [Choose minimum 9 credits]</b>		<b>Fall</b>	<b>Spring</b>
DACS 1464 <sup>1</sup>	Dairy Cattle Handling	[1]	
DASC 1574 <sup>1</sup>	Dairy Science First Year Experience	[1]	
DASC 2204 <sup>1</sup> (PRE: AAEC 1005)	Entrepreneurship in Animal Agriculture	[3]	
DASC 2484 <sup>1</sup>	Dairy Cattle Evaluation		[2]
DASC/APSC 3134 <sup>1,2</sup>	Animal Agriculture and the Environment		[3]
DASC 3274 <sup>1</sup> (CO: ALS 3204)	Applied Dairy Cattle Nutrition	[3]	
DASC 4174 <sup>1</sup> (PRE: ALS 3104)	Applied Dairy Cattle Genetics		[3]
DASC 4274 <sup>1</sup>	Dairy Ration Formulation	[1]	
DASC/APSC 4304 <sup>1,2</sup> (PRE: ALS 2304)	Bovine Reproduction Practices	[2]	
DASC 4384 <sup>1</sup> (PRE: ALS 2304, ENGL 1106)	Mammary Immunology (taught in even years)		[3]
DASC 4474 <sup>1</sup> (PRE: 3474, ALS 3104, ALS 3204, ALS 3304. CO: 4475)	Advanced Dairy Management Evaluation		[2]
DASC 4475 <sup>1</sup> (PRE: DASC 2474)	Dairy Enterprise Management		[3]
DASC 4476 <sup>1</sup> (PRE: 3474, (4475 OR AAEC 3454))	Dairy Enterprise Management	[3]	
DASC 4974 <sup>1</sup> or 4994 <sup>1</sup>	Independent study or Undergraduate research (maximum of 3 credits)	[ ]	[ ]

**Option Minor Requirement [18 credits minimum]:**

Must complete formal Minor or Double Major course requirements in any department **including at least 18 credits** from that department.

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

**Option Restricted Electives [8 credits minimum]**

Any AAEC, ACIS, ALS, APSC, BCHM, BIOL, BSE, CHEM, COMM, CS, CSES, DASC, ECON, ENT, FIW, FOR, FST, HORT, MATH, MGT, MKTG, PHYS, SPAN, STAT, and BMVS courses (with advisor approval).

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

**Minimum Total Option Credits**

**35**

**Free Electives [Number needed to complete 120 credits]:**

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

**MINIMUM DASC CREDITS REQUIRED FOR GRADUATION 20**

**TOTAL CREDITS REQUIRED FOR GRADUATION 120**

<sup>1</sup> "in major" GPA courses indicated

<sup>2</sup> Cross-listed courses (DASC/APSC 3134, DASC/APSC 4304) can be used to meet Option requirements or Option Minor requirements but not both.