APPROVED
COMMISSION ON UNDERGRADUATE
STUDIES AND POLICIES

College of Liberal Arts and Human Sciences
School of Education
Bachelor of Science in Education in Secondary Education
Major in Technology Education
Checksheet For Students entering under UG Catalog 2023-2024

GRADUATION REQUIREMENTS

Language Study Requirement - Students who do not complete two years of a single foreign or classical language or American Sign Language in high school, may do so by taking six credits of college-level foreign or classical language or American Sign Language. The six credits used to meet this requirement may not be used to satisfy the minimum number of credits required for gradation.

Credits and GPA – Completion of a minimum of 120 credits with a minimum overall GPA of 2.5; and in-major GPA of 3.0. (In major GPA includes all EDCI, EDCT, EDTE and EDEP courses)

Additional Requirements – Students must submit passing scores on required state licensure examinations. Students must also complete an industry internship in technology, engineering, or a design-based company and obtain an approved industry credential.[1]

Prerequisites: Some courses listed on this checksheet may have pre-/co-requisites; please consult the University Course Catalog or check with your advisor.

SATISFACTORY PROGRESS TOWARD DEGREE

University Policy 91[2] requires a student to make satisfactory progress towards a degree. Additionally, licensure programs require that by the time a student has completed 72 credits, they must have passed all licensure examinations, carry an in-major GPA of 3.0, and be accepted into the educator preparation program.

PATHWAYS GENERAL EDUCATION (45 CREDITS)

**unless otherwise indicated, all courses taken to satisfy Pathways General Education must be taken on an A-F basis*

Concept 1: Discourse (9 credits)		
	1f - Foundational	
	____	ENGL 1105 First-Year Writing (3 credits)
	____	ENGL 1106 First-Year Writing (3 credits) Pre: ENGL 1105
	1a - Advanced/Applied	
	____	(3 credits)
Concept 2: Critical Thinking in the Humanities (6 credits)		
	____	STS 1504 Intro Science, Tech, Society[3] (3 credits)
	____	(3 credits)
Concept 3: Reasoning in the Social Sciences (6 credits)		
	____	(3 credits)
	____	(3 credits)
Concept 4: Reasoning in the Natural Sciences (6 credits)		
	____	Choose from approved list (3 Credits)
	____	Choose from approved list (3 Credits)
Concept 5: Quantitative and Computational Thinking (9 credits)		
	5f - Foundational[4]	
	____	MATH 1025 Elementary Calculus (3 credits)
	____	MATH 1026 Elementary Calculus (3 credits) Pre: MATH 1025
	5a - Advanced/Applied	
	____	(3 credits)

[1] https://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml
[2] https://policies.vt.edu/91-eligibility-for-continued-enrollment.pdf
[3] Can be used for Pathway 2 or 3
[4] Transfer students can substitute MATH 1225 and MATH 1226

Concept 6: Critique and Practice in Design and the Arts (6 credits)		
	6d – Design [5]	
	____	EDTE 1004 Introduction to Integrative STEM Education (3 credits)
	6a – Arts	
	____	(3 credits)
Concept 7: Critical Analysis of Identity and Equity in the United States (3 credits)[6]		
	____	(3 credits)
BACHELOR OF SCIENCE IN EDUCATION IN SECONDARY EDUCATION COMMON DEGREE CORE REQUIREMENTS[7] (21 CREDITS)		
	____	EDCI 2574 Social Foundations of Education (3 credits)
	____	EDCI 4554 Educating Exceptional Learners (3 credits) Pre: Jr. Standing
	____	EDCI 4724 Secondary School Teaching Methods I (3 credits) Co: EDCI 3964
	____	EDCI 4734 Adolescent Literacy and Reading (3 credits)
	____	EDCI 4744 Secondary School Teaching Methods II (3 credits) Pre: EDCI 4724. Co: 3964 or EDTE 3964
	____	EDEP 2374 Educational Psychology for PK-12 Teachers (3 credits) Pre: Sophmore standing.
	____	EDEP 3474 Principles and Practices in PK-12 Assessment (3 credits)
MAJOR IN TECHNOLOGY EDUCATION (51 CREDITS)		
	____	CS 1014 Introduction to Computational Thinking (3 credits)
	____	CS 1064 Introduction to Programming in Python (3 credits)
	____	ECE 1004 Introduction to Electrical and Computer Engineering Concepts (3 credits) Pre: ENGE 1215 or ENGE 1414[8]
	____	EDCT 4624 Managing a Career and Technical Education Program (3 credits)
	____	EDTE 1014 Teaching Technology, Engineering, and Design (3 credits) Pre: EDTE 1004 or ENGE 1215 or ENGE 1414
	____	EDTE 2005 Engineering Technologies (3 credits) Pre: EDTE 1014
	____	EDTE 2006 Engineering Technologies (3 credits) Pre: EDTE 2005
	____	EDTE 2204 Emerging Issues in Technology and Engineering (3 credits) Pre: EDTE 2005
	____	EDTE 3204 Robotics Education (3 credits) Pre: EDTE 2006, CS 1014, CS 1064
	____	EDTE 4204 Capstone in Technology and Engineering Education (3 credits) Pre: EDTE 2204, 3204
	Technology Education Breadth Electives (6 credits)	
	____	Choose from approved list
	____	Choose from approved list
	Field-Based Requirements (15 credits)	
	____	EDCI 3964 Field Study/Practicum (6 credits; 2 courses at 3 credits each)
	____	EDCI 4964 Field Study/Practicum (9 credits)
FREE ELECTIVE COURSE (3 CREDITS)		

TOTAL CREDITS 120

[5] Transfer students can substitute ENGE 1215 Foundations of Engineering (2 credits) or ENGE 1414 Foundations of Engineering Practice (4 credits)

[6] May double-count with another Pathway Concept

[7] unless otherwise indicated, all courses must be taken on an A-F basis; courses satisfying degree core requirements may not be double counted to satisfy other areas of a degree.

[8] Departmental permission (ECE) provided for alternate Pre: MATH 1205 and Co: 1206 for ECE 1004 for non-ECE Majors.

Approved Courses for Pathway Concept 4: Reasoning in the Natural Sciences (6 credits)
BIOL 1105 Principles of Biology (3 Credits) **AND** BIOL 1106 Principles of Biology (3 Credits) **OR** CHEM 1015 Chemistry in Context (3 Credits) **AND** CHEM 1016 Chemistry in Context (3 Credits) **OR** CHEM 1035 General Chemistry (3 Credits) Pre: CHEM 1014 or MATH 1014 or MATH 1025 or MATH 1536 or MATH 1225 or MATH 1214 **AND** CHEM 1036 General Chemistry (3 Credits) Pre: CHEM 1035 or CHEM 1055 or CHEM 1055H **OR** PHYS 2205 General Physics (3 credits) 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 **AND** PHYS 2206 General Physics (3 credits) Pre: PHYS 2305 or 2205
Approved Technology Education Breadth Electives
ALCE 3074 Materials and Procedures of Agricultural Construction (3 credits) Pre: Junior standing or instructor permission ALCE 3084 Agriculture Metal Fabrication (3 credits) Pre: Junior standing or instructor permission AOE 2664 (ECE 2164) Exploration of the Space Environment (3 credits) BC 1214 Introduction to Building Construction I (3 credits) BC 1224 Introduction to Building Construction II (3 credits) Pre: BC 1214 BSE 2094 Introduction to Metal Fabrication (1 credit) BSE 2484 Engine and Power Train Technology (3 credits) Pre: MATH 1016 or MATH 1025 BSE 3494 Advanced Welding Technology (1 credit) Pre: instructor permission CS 1114 Introduction to Software Design (3 credits) CS 2064 Intermediate Programming in Python (3 credits) Pre: CS 1064 ENSC 1015 Foundations of Environmental Science (3 credits) ENSC 1016 Foundations of Environmental Science (3 credits) ENSC 3604 Fundamentals of Environmental Science (3 credits) Pre: BIOL 1105 or CHEM 1035 FREC 2004 Forest Ecosystems (3 credits) FREC 2124 Forests, Society, and Climate (3 credits) FREC 2554 (LAR 2554) (NR 2554) Leadership for Global Sustainability (3 credits) MSE 1014 The Science of Materials in Everyday Life (3 credits)