

**VIRGINIA COMMONWEALTH UNIVERSITY
GRADUATION WORKSHEET**

**BACHELOR OF SCIENCE IN SCIENCE
COLLEGE OF HUMANITIES AND SCIENCES**

Name _____

Date _____

Questions about transfer credit evaluation should be directed to
Coordinator of Academic Advising, 205 Hibbs, 828-1673.

SS# _____

VCUCOURSES ACCEPTED TRANSFER COURSES SEMESTER CREDITS

**GRADE LOWER UPPER QUALITY
 LEVEL LEVEL POINTS**

GENERAL REQUIREMENTS

WRITING: ENGL 101-200 (with a minimum grade of C in each) **Students must complete 24 credits before enrolling in ENGL200**

ENGL 101	_____	_____	_____	_____
ENGL 200	_____	_____	_____	_____

AND: Two writing intensive (WI) courses, at least one of which must be in the student's major (**See Approved List A and Schedule of Classes each semester**)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

MATHEMATICS AND STATISTICAL REASONING : MATH 151 (by course or placement) **AND** STAT 208 or 210 (for ENS track, must be STAT 210), and additional course required by track. See below.

MATH 141(ifneeded)	_____	_____	_____	_____
MATH 151	_____	_____	_____	_____
STAT 208 or 210	_____	_____	_____	_____

If checked, student **must** take the mathematics placement test. No credit for previous mathematics courses unless student places at MATH 151, 200, or STAT 210 levels. If proper placement is made, see Coordinator of Academic Advising for acceptance of transfer credit.

CIVILIZATION: (8-9 credits) Students must take one course (3 credits) from each of the following areas (9 credits total) but no more than six credits in any one discipline; **OR** take two 4-credit interdisciplinary courses (8 credits total) that combine elements of A, B, and C.

- A. Historical and Cultural Origins. One course (3 credits) that expands students' understanding of the historical and cultural roots of the modern world. (See Approved List G)
- B. American (U.S.) Studies. One course (3 credits) that explores contemporary United States society with particular attention to aspects of its historical development. (See Approved List H)
- C. Global Studies. One course (3 credits) with an explicit focus on the interactions of nations, peoples, and social economic forces in today's integrated global society. (See Approved List I)

_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

VISUAL AND PERFORMING ARTS. (2-4 credits). One course in the visual or performing arts. (See Approved List E)

LITERATURE : (3 credits) One literature course. (See Approved List F)

FOREIGN LANGUAGE: (0-8 credits). Competency through the elementary level (102 or equivalent) by course or placement.

HUMAN BEHAVIOR: (6-7 credits). 2 courses in different disciplines focusing on human behavior. (See Approved List J)

URBAN ENVIRONMENT: (3 credits) Coursework or internship, within the major or through general education, dealing with aspects of modern urban life. (See Approved List K)

The Bachelor of Science degree in Science requires 32-35 credits in CORE science and mathematical courses 30-38 credits in one of the following tracks: Biology, Chemistry, General Science, Mathematics, or Environmental Studies. Depending on the requirements of your chosen track, a ‘C’ grade or better is required in each prerequisite course: CHEM 100 (if needed), CHEM 101, CHEM 102, CHEM 301, CHEM 302

BACHELOR OF SCIENCE IN SCIENCE CORE COURSES:

Core Courses	Biology Track	Chemistry Track	Environmental Science Track	Mathematics Track	General Science Track	Physics Track
Introductory Biology Course (4-5 credits)	BIOL 151 with Laboratory	BIOL 151 with Laboratory	BIOL 151 With Laboratory	BIOL 101, 102,103* or 151 with Laboratory	BIOL 101, 102, 103 or 151 with Laboratory	BIOL 101, 102, 103 or 151 with Laboratory
Introductory Chemistry Course (4 credits)	CHEM 101 with Laboratory	CHEM 101 with Laboratory	CHEM 101 with Laboratory	CHEM 101 or CHEM 110* with Laboratory	CHEM 101 or CHEM 110* with Laboratory	CHEM 101 with Laboratory
Introductory Physics Course (4-5 credits)	PHYS 201 or 207	PHYS 201 or 207	PHYS 201 or 207	PHYS 101, L101 or 107*, or 201, or 207	PHYS 101, L101 or 107, or 201, or 207	PHYS 207
Science Course (3 credits)	INSC 300 or ENVS/GEOG 401	INSC 300 or ENVS/GEOG 401	ENVS/GEOG 401	INSC 300	INSC 300	INSC 300 or ENVS/GEOG 401
Additional Science Course (3 credits)	INSC 301 or ENVS/GEOG 411	INSC 301 or ENVS/GEOG 411	ENVS/GEOG 411	INSC 301	INSC 301	INSC 301 or ENVS/GEOG 411
Math Course (By placement or 4 credits)	MATH 151	MATH 151	MATH 151	MATH 151	MATH 151	MATH 151
Statistics Course (3 credits)	STAT 208 or 210	STAT 208 or 210	STAT 210	STAT 208 or 210	STAT 208 or 210	Satisfied by track requirements
Additional Math Course (3-4 credits)	MATH 200 or STAT beyond 210	MATH 200	STAT 314	MATH 200	MATH 200	MATH 200

*Recommended among options.

TRACK: _____

	<u>GRADE</u>	<u>LOWER</u>	<u>UPPER</u>	<u>QUALITY</u>
		<u>LEVEL</u>	<u>LEVEL</u>	<u>POINTS</u>
BACHELOR OF SCIENCE IN SCIENCE CORE COURSES (List them below.)				
Introductory Biology	_____	_____	_____	_____
Introductory Chemistry	_____	_____	_____	_____
Introductory Physics	_____	_____	_____	_____
Geography Course	_____	_____	_____	_____
Science Course	_____	_____	_____	_____
Addtl. Science Course	_____	_____	_____	_____
Math Course	_____	_____	_____	_____
Statistics Course	_____	_____	_____	_____
Addtl. Math Course	_____	_____	_____	_____

Choose one of the following five tracks:

Biology Track	Credits
BIOL 152 and BIOZ 152 Introduction to Biological Sciences II and Laboratory	4
BIOL 218 Cell Biology	3
BIOL 310 and L310 Genetics	4
BIOL 317 Ecology	3
CHEM 102 and CHEZ L102 General Chemistry and Lab	4
GEOG/ENVS 105 and GEOZ/ENVZ L105 Physical Geography and Lab	4
PHYS 202 and PHYZ L202 General Physics and Laboratory OR PHYS 208 and PHYZ L208 University Physics and Laboratory	4 or 5
One upper-level animal and one upper-level plant course, with laboratories	<u>8</u>
	35-36

Chemistry Track	Credits
BIOL 152 and BIOZ 152 Introduction to Biological Sciences II and Laboratory	4
BIOL 317 Ecology	3
CHEM 102 and CHEZ L102 General Chemistry and Lab	4
CHEM 301-302 Organic Chemistry	6
CHEZ L301 and CHEZ L302 Organic Chemistry Lab	4
CHEM 309 and CHEZ L309 Quantitative Analysis	4
GEOG/ENVS 105 and GEOZ/ENVZ L105 Physical Geography and Lab	4
PHYS 202 and PHYZ L202 General Physics and Lab OR PHYS 208 and PHYZ L208 Univ. Physics and Lab	<u>4 or 5</u>
	34-35

General Science Track	Credits
BIOL 315/ENVS 314 Man and Environment, BIOL 332/ENVS 330 Environmental Pollution OR BIOL 317 Ecology	3
ENVS/GEOG 401 Meteorology and Climatology	3
ENVS/GEOG 411 Oceanography	3
PHYS 103 and PHYZ L103 Astronomy Lab	4
GEOG/ENVS 105 and GEOZ/ENVZ L105 Physical Geography and Laboratory OR GEOG 204 and GEOZ L204 Physical Geography and Laboratory	4
A second introductory course in TWO of the following areas: Biology, Physics and Chemistry courses with laboratories	8-10
Two additional courses at the 200 level or higher in mathematics, science, teaching mathematics and/or science with adviser's approval. Recommended upper level courses are BIOL 320, ENVS 335, EDUS 300 and/or 301	<u>6</u>
	31-33

Mathematics Track	Credits
MATH291 Mathematical Computing or	

MATH 131 Contemporary mathematics		3
MATH 211 Mathematical Structures	3	
MATH 303 Geometry		3
MATH 310 Linear Algebra		3
MATH/OPER327 Mathematical Modeling		3
MATH 351 Applied Abstract Algebra		3
Two additional courses at the 200 level or higher in mathematics, science, teaching mathematics and/or science with adviser's approval. EDUS 300 and/or 301 may be used if student is preparing for teaching		<u>6</u>
		30

Physics track		
PHYS 208 University Physics II		5
PHYS 320 Modern Physics		3
PHYZ320L Modern Physics Laboratory		1
PHYS301 Classical Mechanics I		3
PHYZ 450 Senior Physics Laboratory (WI)		3
MATH 201 Calculus and Analytic Geometry		4
MATH 301 Differential Equations		3
MATH 307 Multivariate Calculus		3
An additional 9 credits taken from any of the following: PHYS 307 The physics of Sound and Music, PHYS 103 Elementary Astronomy, PHYZ103L Elementary Astronomy Laboratory, CHEM 102 General Chemistry II, CHEM/FRSZ102L General Chemistry Laboratory II, MATH 327 Mathematical Modeling, or any courses for the bachelor of science in Physics		<u>9</u>
		34

For information on internships/career-related employment/volunteer career development see the Career Explorations Web Page at <http://www.students.vcu.edu/careers>