

# RIDER UNIVERSITY

Checksheet 2013-14

Name \_\_\_\_\_

Advisor \_\_\_\_\_

## ELEMENTARY EDUCATION (K-5) INTEGRATED SCIENCES & MATHEMATICS SECOND MAJOR

<u>TRANSFER/ GD/SEM*</u>	<u>COURSE TITLE</u>	<u>COURSE NUMBER</u>	<u>SH</u>
<b>BASIC EDUCATION CORE</b>			
_____	Expository Writing	BHP 100P or CMP 120	3
_____	Research Writing	BHP 150P or CMP 125	3
_____	Introduction to Psychology	PSY 100	3
_____	<i>Science Elective (bio/phy)</i>		-
_____	<i>Math Elective</i>		-
_____	Speech Communication	COM 104	3
_____	History Elective	HIS _____	3
_____	Social Science Elective	_____	3
_____	Fine Arts Appreciation Elective	_____	3
_____	Literature Elective	_____	3
_____	Technology Elective(s)	_____	3
_____	<i>Contexts of Schooling</i>		-
<b>EXPANDED ELEMENTARY EDUCATION CORE</b>			
_____	<i>Science Elective (bio/phy)</i>		-
_____	<i>Science Lab</i>		-
_____	Child Development	PSY 230	3
_____	Fine Arts Studio Elective	_____	3
_____	EDU Freshman Seminar( <i>Freshman Only</i> )	NCT 010	-
<b>GENERAL STUDIES ELECTIVES</b>			
_____	General Studies Elective	_____	3
_____	General Studies Elective	_____	3
_____	General Studies Elective	_____	3
_____	General Studies Elective	_____	3
_____	General Studies Elective	_____	0-2

TOTAL CORE AND GENERAL STUDIES ELECTIVES CREDITS -----45-47

### PROFESSIONAL EDUCATION

#### Foundations Courses (6 SH)

_____	Contexts of Schooling	EDU 106	3
_____	Developmental Educ. Psychology	EDU 206	3
(These classes must be taken concurrently)			

#### Methods Courses (12 SH)

_____	Emergent Literacy P-3	ELD 307	3
_____	Teaching Math K-5	ELD 375	3
(These classes must be taken concurrently)			
_____	Fostering Lang. & Liter. Development	ELD 308	3
_____	Teaching Sci., Soc. Std. & the Arts	ELD 376	3
(These classes must be taken concurrently)			

<u>TRANSFER/ GD/SEM*</u>	<u>COURSE TITLE</u>	<u>COURSE NUMBER</u>	<u>SH</u>
	<b>Capstone Experience (12 SH)</b>		
_____	Student Teaching & Seminar	EDU 465	12
	TOTAL PROFESSIONAL EDUCATION CREDITS -----		30

**INTEGRATED SCIENCE MAJOR REQUIREMENTS (49-51 SH)**

*Please refer to the attached departmental checksheet for second major requirements.*

TOTAL SECOND MAJOR CREDITS -----49-51

TOTAL CORE AND GENERAL STUDIES ELECTIVES CREDITS -----45-47

**TOTAL SEMESTER HOURS REQUIRED FOR GRADUATION ----- 126**

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***\*Please indicate semester and year in which courses were taken. Or "T" for transfer of credit.***

A 2.75 cumulative grade point average is required for Junior status in good standing.

Courses in italics may be used to fulfill a requirement in more than one section of the checksheet. Double counting a course does not imply double counting credits, since 126 credits are needed for graduation.

**PLEASE CHECK WITH YOUR SECOND MAJOR ADVISOR TO GUARANTEE GRADUATION REQUIREMENTS.**

**EL-SCI**  
Rev. 06/13

## REQUIREMENTS FOR THE ISM MAJOR

**AREA ONE: Inquiry-based introductory course (4 credits)** Credits

<u>      </u>	ISM-100 Introduction to the Integrated Sciences and Math	4
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**AREA TWO: Two inquiry-based science courses (8 credits)**

One course from two different categories (A, B, or C) not from area of declared concentration:

**A. Life Sciences**

<u>      </u>	BIO-110 Life Science: Inquiry Approach	4
<u>      </u>	BIO-250 Field Natural History	4

**B. Earth Sciences**

<u>      </u>	GEO-100/102 Earth Systems Science and Earth Materials Lab	3/1
<u>      </u>	MAR-120/121 Oceanography and Inquiry-based Lab	3/1

**C. Physical Sciences**

<u>      </u>	CHE-118 Exploration of Chemical Principles	4
<u>      </u>	PHY-105 Matter, Forces and Energy	4

**AREA THREE: Four mathematic courses (15-16 credits)**

Required:

<u>      </u>	MTH-210 Calculus I	4
<u>      </u>	MTH-230 Discrete Mathematics	4

Two of the following:

<u>      </u>	MTH-102 Elements of Finite Mathematics, inquiry section	3
<u>      </u>	MTH-105 Algebra and Trigonometry	4
<u>      </u>	MTH-211 Calculus II	4
<u>      </u>	MTH-212 Calculus III	4

**AREA FOUR: Concentration: Life Sciences, Earth Sciences, Physical Sciences, or Mathematics**

**A. Life Sciences (20 Credits)**

Required:

<u>      </u>	BIO-115 Principles of Biology: Animals	4
<u>      </u>	BIO-116 Principles of Biology: Plants	4

Three of the following (at least one at the 300-level):

<u>      </u>	BIO-117 Principles of Biology: Cells	4
<u>      </u>	BIO-250 Field Natural History	4
<u>      </u>	BIO-265 Genetics	4
<u>      </u>	BIO-272/L Introduction to Marine Biology and Lab	3/1
<u>      </u>	BIO-305 Vertebrate Physiology	4
<u>      </u>	BIO-315 Medical Microbiology	4
<u>      </u>	BIO-321 Environmental Microbiology	4
<u>      </u>	BIO-340 Evolutionary Biology	4
<u>      </u>	BIO-350 General Ecology	4
<u>      </u>	BIO-370 Immunology	4
<u>      </u>	BIO-372 Behavior of Marine Organisms	4
<u>      </u>	BNS-310 Neurobiology	4
<u>      </u>	BNS-375 Neuroethology	4
<u>      </u>	MAR-325 Marine Vertebrates: Fish to Mammals	4

**B. Earth Sciences (19-20 credits)**Required:

_____	GEO-100/102	Earth Systems Science and Earth Materials Lab	3/1
_____	MAR-120/121	Oceanography and Inquiry-based Lab	3/1

Three of the following:

_____	ENV-200	Statistical and Computer Applications in the Natural Sciences	4
_____	ENV-220	Weather and Climate Change	3
_____	GEO-407	Hydrology and Water Resources	4
_____	MAR-210	Marine Life Through Time	4
_____	MAR-380	The Learning and Teaching of Marine Science	4

**C. Physical Sciences (20 Credits)**Required:

_____	CHE-120/121	Principles of Chemistry and Lab	3/1
_____	CHE-122/123	Introduction to Chemical Systems and Lab	3/1
_____	PHY-200	General Physics I	4

One of the following pairs:

_____	CHE-211/213	Organic Chemistry I and Lab	3/1
_____	PHY-105	Matter, Forces and Energy	4
<b>or</b>			
_____	CHE-118	Exploration of Chemical Principles	4
_____	PHY-201	General Physics II	4

**D. Mathematics (18-20 Credits; six courses total)**

Courses selected in Area Three may not also be used to fulfill these requirements.

Required:

_____	MTH-211	Calculus II	4
_____	MTH-212	Calculus III	4
_____	MTH-240	Linear Algebra	3

Three or more of the following:

_____	MTH-250	Differential Equations	3
_____	MTH-308	Advanced Calculus	3
_____	MTH-315	Modern Geometry	3
_____	MTH-340	Probability and Statistical Analysis I	3
_____	MTH-341	Probability and Statistical Analysis II	3
_____	MTH-401	Modern Algebra	3
_____	MTH-410	Complex Analysis	3
_____	MTH-420	Number Theory	3
_____	MTH-430	Introduction to Topology	3
_____	MTH-440	Real Analysis	3

**AREA FIVE: Capstone course (3 credits)**

_____	ISM-410	Seminar in the Integrated Sciences and Math	3
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**Total credits = 49-51**