

This model is in effect for all students entering the program after 9/1/2008

PROGRAM GUIDE

BACHELOR OF ARTS, LIBERAL STUDIES – Math and Science Specialization

- All students are required to take a minimum combined total of 42 semester hours of General Education and Rowan Experience courses. *(Italics indicate prerequisites)*

GENERAL EDUCATION REQUIREMENTS (choice from Approved Gen Ed Guide)				
		Hegis #	COMMUNICATIONS BANK <i>minimum 6 s.h.</i>	6 S.H.
		COMP01.111	College Composition I	3 s.h.
		COMP01.112	College Composition II (<i>College Composition I</i>)	3 s.h.
		Hegis #	SCIENCE/MATHEMATICS BANK <i>minimum 7 s.h.</i>	7 S.H.
			Math/Science (choice from Approved S/M General Education Courses)	3 s.h.
			Lab Science (choice from Approved S/M General Education Courses)	4 s.h.
		Hegis #	SOCIAL & BEHAVIORAL SCIENCES BANK <i>minimum 6 s.h.</i>	6 S.H.
			(choice from Approved SBS General Education Courses)	3 s.h.
			(choice from Approved SBS General Education Courses)	3 s.h.
		Hegis #	HISTORY/HUMANITIES/LANGUAGE BANK <i>minimum 6 s.h.</i>	6 S.H.
			(choice from Approved HHL General Education Courses)	3 s.h.
			(choice from Approved HHL General Education Courses)	3 s.h.
		Hegis #	NON-PROGRAM ELECTIVES <i>minimum 6 s.h.</i>	6 S.H.
				3 s.h.
				3 s.h.

ROWAN EXPERIENCE REQUIREMENTS (choose from Approved RE Guide)				
(Can be taken as a Gen Ed OR within the major requirements.)				
Transfer	Rowan	Hegis #		
		CMS 06202	Public Speaking (<i>College Composition I and II</i>)	3 s.h.
			Artistic/Creative Experience	3 s.h.
CHECK TO BE SURE THE FOLLOWING REQUIREMENTS ARE COMPLETED				
			Broad Based Literature Course (LIT)	
			Writing Intensive Course (WI) (<i>College Composition II</i>)	
			Multicultural/Global Course (M/G)	
			Lab Science Course (LAB) (S/M)	
			Computer Competency Exam or Computer Literacy Course	
			Rowan Seminar (RS) – <i>Freshmen Only</i>	

- NOTE:** *M/G, LIT, ACE, WI and RS courses, if taken within the major program of study, CAN NOT COUNT towards the minimum total of Gen Ed 42 credits.*
- This information has been provided by the department listed above as of the date listed below and is subject to change.
- To declare this major go to the CAP Center in Savitz Hall.
- Students should consult with their program advisor for suggested General Education and Rowan Experience courses.*

Bachelor of Arts, Liberal Studies: Math and Science Specialization

Program Requirements

36 s.h.

Course #	COURSE NAME	S.H.	PREREQUISITES
ASTR 17110	Principles of Earth Science	3	
ASTR 11221	Exploration of the Solar System	3	
BIOL 01105	Essentials of Biology	4	<i>Chem 05102</i>
CS 01200	Computing Environments	3	<i>CS 01080 or passing grade on Computer Competency Exam</i>
MATH 01201	Discrete Mathematics	3	
MATH 03150	Structures of Mathematics	3	
BIOL 20401	Principles of Ecology	4	<i>Biol 01105, Chem 05102, Math 0331, Stat 02260</i>
CHEM 05301	Chemistry of the Environment	3	<i>Math 03305</i>
INTR 02492	Senior Seminar	3	
MATH 03305	Patterns in Nature I: Visual Geometry	3	<i>Biol 01105, Chem 05102, CS 01200, Phys 02150, Stat 02260</i>
MATH 03315	Patterns in Nature II: Projects in Calculus	4	<i>Math 03035</i>

Other Requirements

17 s.h.

CHEM 05102	Chemistry of Everyday Life	4	
PHIL 09110	Logic of Everyday Reasoning	3	
PHYS 02150	Physics of Everyday Life	4	
PSY 01106	Psychology of Scientific Thinking	3	
STAT 02260	Statistics I	3	

Major Electives

s.h.

NOTE: Biology I and II (BIOL 01100 and 01101) may be taken in place of Essentials of Biology (BIOL 01105)

Free Electives..... 25 s.h.

General Education 42 s.h.

Total Credits in Program.....120 S.H.

Bachelor of Arts, Liberal Studies: Math and Science Specialization

General Information

1. The Math/Science specialization is a challenging major. Students are expected to have mastered material required in lower level coursework and integrate this knowledge at the upper level.
2. Although this major is very good choice as a coordinate major for elementary education majors, it is not intended to serve only the needs of elementary education majors. Not everything you learn or are challenged with will relate directly to elementary education.
3. You can NOT be certified in Secondary Education with a Liberal Studies Math/Science degree. Students interested in Secondary Education certification should go to the Secondary Education department for advisement in this matter.

Policies

1. If a student wants to change their major to Liberal Studies with a Math/Science specialization, they can only do so with a signature from the Math/Science coordinator. The student will be assigned to the appropriate graduation class.
2. Every class is limited to 24 students with a common graduation date. This cohort of students will start the upper level course sequence in the fall of the junior year of the program.

Upper level sequence:

Fall Jr.: Patterns I

Spring Jr.: Patterns II, Chemistry of the Environment

Fall Sr.: Senior Seminar, Principles of Ecology

3. You are accepted into a specific graduating class. You cannot switch or "drop down" to the next class without permission. Each class is limited to 24. If you fail to complete the requirements for your class, and you still wish to remain in the specialization, you will have to wait for the next available seat in a future class. This could easily result in a delay of two or three years for your graduation date.
4. All lower level math and computer science courses must be completed before taking Patterns I. On occasion and with permission of the coordinator, a student may take *one* course as a co-requisite with the Patterns I course. Pre-Calculus in high school *or* college is required before starting the upper level sequence.
5. All science courses must be completed before the spring of the junior year.
6. Philosophy courses may be taken at any time throughout program.

Advising

1. It is very important that you meet with the Math/Science advisor at *least one month before the start of registration*. It is sometimes necessary to reserve seats in required courses. This ensures that students within this specialization can proceed in a timely manner through the lower level sequence.
2. You must follow the advisement sheet that you and the advisor develop during your individual conference. If you decide later to alter what has been developed, you should discuss your changes with your advisor.
3. If during registration, you do not get a course listed on your advisement sheet, you MUST contact the advisor ASAP for alternate advice.
4. All courses taken at other institutions for credit at Rowan University must be approved before taking the course. (This form is available from the Registrar's Office - Savitz Hall)

Grade Requirements

1. All students must have at least a 2.5 GPA in all the math/science/philosophy courses required for the major. Students must have a 2.0 overall GPA to graduate from Rowan University.
2. No D's are allowed in lower level courses.

IMPORTANT: Failure to meet the above policies and guidelines could result in you being dropped from the Math/Science specialization.

Suggested Course Sequence for Liberal Studies: Math and Science Specialization

PLEASE NOTE: Considerable flexibility exists for moving courses between spring and fall semesters, except when a course is only offered in spring or fall (noted in some Specialization Courses). When altering course sequences, give careful consideration to prerequisites.

<i>First Semester</i>		<i>Second Semester</i>		FRESHMEN
College Composition I	3	College Composition II	3	
Chemistry of Everyday Life	4	Physics of Everyday Life	4	
Logic of Everyday Reasoning	3	Art Elective	3	
Principles of Earth Science	3	Psychology of Scientific Thinking or Philosophy of Science	3	
SBS GE	3	HHL GE	3	
	16		16	32
<i>Third Semester</i>		<i>Fourth Semester</i>		SOPHOMORE
Public Speaking	3	Essentials of Bio	4	
Exploration of the Solar System¹	3	NPE	3	
Structures of Math	3	Statistics I (Prerequisite required)²	3	
Computing Environments	3	NPE	3	
NPE	3			
	15		13	28
<i>Fifth Semester</i>		<i>Sixth Semester</i>		JUNIOR
Patterns in Nature I	3	Chemistry of the Environment	3	
SBS GE	3	Patterns in Nature II	4	
Discrete Math	3	NPE	3	
NPE	3	NPE	3	
FE	3	FE	3	
	15		16	31
<i>Seventh Semester</i>		<i>Eighth Semester</i>		SENIOR
Math/Science Senior Seminar (WI)	3	FE	3	
Principles of Ecology	4	FE	3	
FE	3	FE	3	
FE	3	FE	3	
FE	3	FE	1	
	16		13	29

∞ All students must take a course labeled as M/G, a course labeled as LIT, and a course labeled as WI.

∞ All students must pass the Computer Competency Exam or take the Computer Literacy course.

∞ Underlined M/S courses MUST be taken in listed semester.

∞ ¹Solar System offered only in Fall semester

∞ ²All students must have taken a pre-calculus course in high school. Students not meeting this requirement should take Pre-Calculus during their freshmen year at Rowan. All but one of the lower level M/S courses must be completed before Fall of the junior year.