

## CHECK-OFF LIST FOR COMPUTER SCIENCE MAJORS

For freshman students entering the major in September 2010 or later

Student: \_\_\_\_\_

Evaluated by: \_\_\_\_\_

Advisor: \_\_\_\_\_

Date: \_\_\_\_\_

### GENERAL EDUCATION AND FREE ELECTIVES

*General Education courses and Rowan Experience courses must total at least 42 s.h.*

Communication (6 s.h.)	Semester	Grade	Trans Cr	Rowan Cr
College Composition I	_____	_____	_____	_____
College Composition II	_____	_____	_____	_____

#### Mathematics & Science (7 s.h.)

*Note: The science and math courses listed in the "Required Supporting Courses" section below may be applied toward this requirement.*

Choice **Calculus I** \*\*\*\* Fill in appropriate information below \*\*\*\*

Choice **Calculus II** \*\*\*\* Fill in appropriate information below \*\*\*\*

#### Social & Behavioral Sciences (6 s.h.)

*Note: The course Computers and Society (INTR 01.265 or 01.266) may be applied toward this requirement.*

Choice **Computers and Society** \*\*\*\* Fill in appropriate information below \*\*\*\*

Choice \_\_\_\_\_ \_\_\_\_\_

#### History/Humanities/Languages (6 s.h.)

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

#### Non Program Electives (Must be selected from SBS, HHL, or ACE banks) (6 s.h.)

Choice **ACE Choice** \*\*\*\* Fill in appropriate information below \*\*\*\*

Choice \_\_\_\_\_ \_\_\_\_\_

#### Free Electives (0 to 16 s.h.: The overall semester hours for the degree must total at least 120.)

*Note: Software Engineering Lab and Computer Lab Techniques are strongly recommended*

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

Choice \_\_\_\_\_ \_\_\_\_\_

### ROWAN EXPERIENCE AND REQUIRED SUPPORTING COURSES

*Required courses, General Education courses, and free electives may all be used to meet Rowan Experience requirements. A single course may be used to meet more than one Rowan Experience and required supporting courses requirement. A Rowan Seminar course is required only of students who enter Rowan as freshmen.*

Required Supporting Courses:	Semester	Grade	Trans Cr	Rowan Cr
ACE Choice _____	_____	_____	_____	_____
Public Speaking	_____	_____	_____	_____
Computers & Society (INTR 01.265 or 01.266)	_____	_____	_____	_____
Calculus I	_____	_____	_____	_____
Lab Science _____	_____	_____	_____	_____
Lab Science _____	_____	_____	_____	_____
Lab Science _____	_____	_____	_____	_____

*Lab Sciences: Any three courses chosen from the following list:*

Biology	Chemistry	Physics
BIOL 01.104 Diversity, Evolutions & Adaption	CHEM 06.100 Chemistry I	PHYS 00.220 Intro Mechanics
BIOL 01.106 Concepts in Genetics	CHEM 06.101 Chemistry II	PHYS 00.221 Intro Thermo, Fluid, Waves, Optics
BIOL 01.203 Introduction to Cell Biology	CHEM 09.250 Quantitative Analysis	PHYS 00.222 Intro to Electricity & Magnetism
BIOL 01.100, 101 Biology I, (transferred only)	CHEM 07.200 Organic Chemistry I	PHYS 00.300 Modern Physics
BIOL 01.202 Biological Skills and Methods (only if Biology I was transferred)		PHYS 00.340 Optics and Light
		PHYS 00.310 Analytical Mechanics
		PHYS 00.320 Electricity and Magnetism I

#### Rowan Experience Requirements:

	Satisfied?	By which course and during which semester?
Arts & creative Experience	_____	
Literature	_____	
Multicultural/Global	_____	
Rowan Seminar	_____	
Writing Intensive	_____	
2 semesters of CS LiBBY requirement:	_____	

**MAJOR COURSE REQUIREMENTS**

<b>Major required Math courses (13 s.h.)</b>	Semester	Grade	Trans Cr	Rowan Cr	Quality pts
Discrete Structures	_____	_____	_____	_____	_____
Calculus II	_____	_____	_____	_____	_____
Linear Algebra	_____	_____	_____	_____	_____
Probability & Stat Inference Com Sys	_____	_____	_____	_____	_____

<b>Required Computer Science (37 s.h.)</b>	Semester	Grade	Trans Cr	Rowan Cr	Quality pts
Intro to Object-Oriented Programming	_____	_____	_____	_____	_____
Object-Oriented Prog./Data Abstraction	_____	_____	_____	_____	_____
Data Structures and Algorithms	_____	_____	_____	_____	_____
Computer Organization	_____	_____	_____	_____	_____
Foundations of Computer Science	_____	_____	_____	_____	_____
Software Engineering I	_____	_____	_____	_____	_____
Programming Languages	_____	_____	_____	_____	_____
Principles of Digital Computers	_____	_____	_____	_____	_____
Digital Computer Lab	_____	_____	_____	_____	_____
Design & Analysis of Algorithms	_____	_____	_____	_____	_____
Operating Systems	_____	_____	_____	_____	_____
Senior Project	_____	_____	_____	_____	_____

<b>Restricted Electives (12 s.h.)</b>	Semester	Grade	Trans Cr	Rowan Cr	Quality pts
Advanced Computer Architecture	_____	_____	_____	_____	_____
Artificial Intelligence	_____	_____	_____	_____	_____
Compiler Design	_____	_____	_____	_____	_____
Computer Field Experience	_____	_____	_____	_____	_____
Computer Cryptography	_____	_____	_____	_____	_____
Computer Vision	_____	_____	_____	_____	_____
Concurrent Programming	_____	_____	_____	_____	_____
Data Communications & Networking	_____	_____	_____	_____	_____
Database Systems: Theory/Programming	_____	_____	_____	_____	_____
Distributed Systems	_____	_____	_____	_____	_____
Embedded Systems Programming	_____	_____	_____	_____	_____
Introduction to Information Visualization	_____	_____	_____	_____	_____
Introduction to Computer Animation	_____	_____	_____	_____	_____
Introduction to Computer Graphics	_____	_____	_____	_____	_____
Object Oriented Design	_____	_____	_____	_____	_____
Programming in Ada	_____	_____	_____	_____	_____
Robotics	_____	_____	_____	_____	_____
Selected Topics in CS	_____	_____	_____	_____	_____
Software Engineering II	_____	_____	_____	_____	_____
System Programming and OS Internals	_____	_____	_____	_____	_____
TCP/IP and Internet Technologies	_____	_____	_____	_____	_____
Theory & App Pattern Recognition	_____	_____	_____	_____	_____
Theory of Computing	_____	_____	_____	_____	_____
Web Programming	_____	_____	_____	_____	_____
Wireless Networks	_____	_____	_____	_____	_____
Other* _____	_____	_____	_____	_____	_____

GPA: \_\_\_\_\_ (make sure to include grade for **College Composition I** in GPA computation)

**Note:**

- a. A grade of C- or better in Calculus I, Discrete Structures, Introduction to Object Oriented Programming, Object Oriented Programming/Data Abstraction, Computer Organization and Data Structures and Algorithms is required for graduation and to take any course that have the above courses as a prerequisite. This policy applies whether these courses are taken locally or transferred.
- b. Department of Mathematics requires grade C- or better in Calculus II in order to take Probability and Statistical Inference for Computing Systems
- c. A 2.5 grade point average in the required and restricted elective courses together with College Composition I, (not including Calc I, Comp & Soc, or the lab sciences) whether they are taken locally or transferred, is required for graduation (A = 4; B = 3; C = 2; D = 1; F = 0; "+" = +0.3; "-" = -0.3).
- d. \*Graduate courses may be counted as restricted electives when takes as senior privilege or part of the accelerated BS/MS degree program
- e. \*CS 01.400: **Independent Study** can be counted as a single 3 hour restricted elective with the approval of the student's mentor/course advisor.