



La Roche College  
2010 COMPUTER SCIENCE PROGRAM GUIDE  
Degree: Bachelor of Science Department: Computer Science

Student Name \_\_\_\_\_ First-Year Student \_\_\_ Transfer \_\_\_  
I.D. Number \_\_\_\_\_ Change of Major \_\_\_ Readmit \_\_\_

Unofficial Eval Completed by/date: \_\_\_\_\_

This is an **unofficial evaluation** of your credits to date including transfer credits (if applicable) in your chosen major. **This evaluation is official when all official transcripts for all previous college work are received and reviewed for transferability by the Registrar's Office AND the Registrar's signature is included on page 3.** Evaluations are not official until official transcripts for all previous college work are received and reviewed for transferability by the Registrar's Office.

**PURPOSE:** A major in Computer Science is meant to prepare students for jobs and careers in the computer industry or for further study at the graduate level in computer science, telecommunications, or related fields, or to provide students with a background in a fundamental science.

- REQUIREMENTS:** To successfully complete the Computer science major, the following coursework is required:
- 52 Major Component credits (30 Computer Science, 14 Mathematics, 8 Physics)
  - 9 Computer Science elective credits
  - 34 Core credits
  - 25 General Electives
  - A minimum of 120 credits is required for degree, the last 30 of which must be earned at La Roche College. (Developmental course work does not count toward the minimum number of required credits for graduation.)

<b>COMPUTER SCIENCE COMPONENT: 30 CREDITS</b>		<b>Credits</b>	<b>Transfer Course #/Comments</b>
___ CS 102	Introduction to Computer Science	3	_____
___ CS 110	Programming I	3	Prerequisite: CS 102 or SELSCI-005
___ CS 110L	Programming I Lab	1	Co-requisite CS 110
___ CS 210	Programming II	3	Prerequisite: CS110/L
___ CS 210L	Programming II Lab	1	Co-requisite CS 210
___ CS 220	Algorithm Analysis	3	Prerequisite: CS 210/L, MT 250
___ CS 225	Systems Programming	3	Prerequisite: CS 210/L
___ CS 225L	Systems Programming Lab	1	Co-requisite: CS 225
___ CS 235	Computer Organization & Design	3	Prerequisite: CS 225
___ CS 255	Database Systems Theory <b>OR</b>	3	Prerequisite: CS 110/L
___ IST245	Database Management Systems		Prerequisite: CS 102
___ CS 340	Operating Systems	3	Prerequisite: CS 235
___ CS xxx	CS Senior Capstone Experience <b>OR</b>	3	Prerequisite: Junior/Senior Status
___ CS 420	Intro to Software Engineering <b>AND</b>		
___ CS 490	CS Senior Seminar		

<b>COMPUTER SCIENCE ELECTIVES: SELECT ANY 3 COURSES (9 CREDITS)</b>			
___ CS 342	Intro to Computer Security	3	_____
___ CRIM 343	Computer Crime	3	_____
___ CS 4xx	Any 400-level CS course	3	_____
___ IST 305	Legal Issues & Info Tech	3	Prerequisite: Junior/Senior Status
___ IST 308	Web Page Usability & Programming	3	Prerequisite: CS 210, CS 255
___ IST 315	Human-Computer Interaction	3	Prerequisite: CS110, CS 255 or IST 245
___ INTR 451	Internship	3	_____

**MATHEMATICS COMPONENT: 14 CREDITS**

___ MT 132	Analytical Geometry & Calculus I	4	<u>Prerequisite: Math Placement Exam or MT110/A</u>
___ MT 133	Analytical Geometry & Calculus II	4	<u>Prerequisite: MT 132</u>
___ MT 140	Probability & Statistics	3	<u>Prerequisite: MT 110</u>
___ MT 250	Discrete Mathematics I	3	<u>Cross-listed as CS 215 Discrete Structures I</u> <u>Prerequisite: MT 132</u>

**PHYSICS COMPONENT: 8 CREDITS**

___ PHY 132	Physics I	3	_____
___ PHY 132L	Physics I Lab	1	<u>Co-requisite PHY 132</u>
___ PHY 133	Physics II	3	_____
___ PHY 133L	Physics II Lab	1	<u>Co-requisite PHY 133</u>

**ACADEMIC CORE COURSES – 34 CREDITS**

**Fundamentals:**

___ IST 105	Practical Computer Applications	3	_____
___ EN 111	College Writing I	3	_____
___ EN 111L	College Writing I Lab	0	_____
___ EN 112	College Writing II	3	<u>Co-requisite for EN111</u>

**La Roche Experience: 4 credits**

___ LRC 101	Intro & History	1	_____
___ LRC 102	Diversity/Discrim	1	<u>Prerequisite: LRC 101</u>
___ LRC 201	Regions of Conflict	1	<u>Prerequisite: LRC 101</u>
___ LRC 202	Economic Justice	1	<u>Prerequisite: LRC 101</u>

**\*Note to transfer students:** Students transferring more than 15 credits must attend an LRC Experience orientation session in lieu of LRC 101. They will be expected to complete the remainder of the LRC Experience series of courses

**SELECT:** 12 credits are required with study within each of the following domains. Students can fulfill five domains with four courses (earning a total of 12 credits) by completing "dual-domain SELECT courses such as SELECTLITAES (fulfills the SELECT Literature and SELECT Aesthetics requirements). Student earns 3 credits only for each dual-domain course. The "lost" 3 credits can be fulfilled through an additional major or general elective.

___ SELECT Aesthetics _____	3	_____
___ SELECT Religion/Philosophy _____	3	_____
___ SELECT Literature _____	3	_____
___ SELECT History _____	3	_____
___ SELECT Science _____		<u>Fulfilled by major</u>
___ SELECT Soc/Cult _____	3	<u>IST 205 IT: A Global Perspective: recommended</u>

All students at LRC are required to have been exposed to a modern language either here or in high school. Any student who did not have a modern language in high school must take one modern language course to graduate and can count this as their SELECT Social/Cultural course. Bilingual and adult students are exempt from this requirement. Other than this SELECT course substitutions may be made only in extreme circumstances and must be approved in advance by completion of a Core substitution form.

**Community/Global: 6 credits required. (or 6 credits in same Foreign Language)**

___ COMM _____	3	_____
___ GLBL _____	3	_____

**General Electives: 25 Credits:** Electives may be used to fulfill a second major, minor or certificate program. Recommended programs are: Information Technology, Computer Information Systems, Criminal Justice, Criminalistics, Marketing, Management, Accounting, or English. A minor in Mathematics is highly recommended for graduate study in CS.

<u>Course #</u>	<u>Credits</u>	<u>Course #</u>	<u>Credits</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**NOTE TO TRANSFER STUDENTS:** Credits earned at technical schools may not be accepted for upper-level Computer Science courses. All transfer decisions will be determined by the Department Chair.

**FOR REGISTRAR USE ONLY**

	<u>TOTAL</u>	<u>Completed</u>	<u>Need</u>	<u>Comments:</u>
Major Component	52	_____	_____	_____
Major Electives	9	_____	_____	_____
CORE	34	_____	_____	_____
General Electives	25	_____	_____	_____
Accepted into transfer	_____	_____	_____	_____
La Roche College Credit	_____	_____	_____	_____
<b>TOTAL</b>	<b>120</b>	_____	_____	_____

**Registrar's Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

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**Advisor Signature** \_\_\_\_\_ **Date** \_\_\_\_\_

*(When signed by Advisor, all required coursework/credits have been completed for graduation.)*