Slippery Rock University of Pennsylvania – Curriculum Guide
Bachelor of Science in Computing
Concentration in Computer Science

ROCK STUDIES REQUIREMENTS (38-40 credits)		
Course	Title	Cr
THE ROCK (12 credits)		
EXEMPT	Foundations of Academic Discovery	0
ENGL 102	Critical Writing	3
ENGL 104	Critical Reading	3
✓ COMM 200	Civil Discourse **COMM201**	3
MATH 125 or	Pre-Calculus	4
MATH 225 or	Calculus I	4
MATH 230 or	Calculus II	4
MATH 231 or	Calculus III	4
✓ STAT 152	Elementary Statistics I **Math Elective: SRU recommends MATH 107**	3 ◊
INTEGRATED INQUIRY (14-16 credits)		
Creative and Aesthetic Inquiry (3 credits)		
		3
Humanities Inquiry (3 credits)		
✓	**Economics Elective**	3
Social Science Inquiry (2-3 credits)		
✓	**PHED 125 or HLTH 120**	**2-3**
Natural Science Inquiry (3-4 credits)		
✓	**Natural Science Elective with Lab**	**3-4**
Physical Science Inquiry (3 credits)		
SCI 102	Understanding the Physical World	3
THEMATIC THREAD (12 credits) **Full list of Thematic Threads and their course requirements available here.**		
Choose 12 credits (from at least 3 Categories; no more than 6 credits from one department; 6 credits must be 300-level or above)		

COMPUTER COMPETENCY (3 credits) **Students must demonstrate "computer competency" by:**		
Passed Exam	Pass Computer Competency Exam at SRU	
OR		
CPSC ___ ✓ **COMP 101**	Complete one of the following courses: CPSC 100, 110, 130, or PE202 at SRU or another post-secondary institution	3

OTHER BASIC REQUIREMENTS (Check with your advisor or a current degree audit report to see if you have been exempted from this course.) The credit earned in this course will not be counted toward the 120-credit hour minimum needed to earn a degree.		
EXEMPT	Beginning Algebra	

★	Course may have a prerequisite. See Undergraduate Online Catalog.
^	Course counts for 50% of Major requirements and Major GPA
◊	Course may be counted as both a Major and Rock Studies Requirement, but earns credit only once toward the 120-credit total.
PASSHE = Pennsylvania State System of Higher Education Institution	

Co-curricular and Experiential Learning Students are encouraged to explore additional curricular and co-curricular opportunities. There is a strong correlation between long-term student success and participation in the following types of programs and activities:	
1.	High-Impact Practice (HIP) designated classes, (Learning Community, Cap-Stone Course, Semester Projects
2.	Student-faculty research
3.	Service Learning Courses
4.	Internships
5.	Volunteering (Summer Day Camps, Semester Workshops for K-12 students, Robot demos for visitors/local school districts)
6.	Industry Awareness Night

MAJOR/CONCENTRATION REQUIREMENTS (51 credits) • 27 major credits must be taken at SRU or PASSHE • 27 major credits must be taken at the 300 level or above		
Course	***Title***	***Cr***
Required Core Courses (24 credits)		
✓ CPSC 130^	Intro to Computing & Programming★ **COMP235**	3
✓ CPSC 146^	Programming Principles ★ **COMP237**	3
✓ CPSC 207^	Shell Commands and Scripting **COMP246**	3
✓ CPSC 300^	Challenges of Computer Tech★ **Computer Elective: SRU recommends COMP 208**	3
CPSC 311^	Discrete Computational Structures★	3
✓ CPSC 323^	Database Systems★ **COMP229**	3
CPSC 327^	Administration and Security★	3
CPSC 423^	Computer Networks★	3
✓ STAT 152^	Elementary Statistics I ★ **Math Elective: SRU recommends MATH 107**	◊
Computer Science Core Courses (21 credits)		
CPSC 246^	Advanced Programming Principles★	3
CPSC 370^	Computer Org & Arch ★	3
✓ CPSC 374^	Algorithms & Data Structures ★ **COMP233**	3
CPSC 376^	Programming Language & Theory★	3
CPSC 474	Advanced Architectures & Parallel Computing	3
CPSC 476	Artificial Intelligence	3
CPSC 488^	Software Engineering ★	3
Computer Science Electives (6 credits)		
Choose one from the following (3 credits)		
CPSC 217^	Structured and Dynamic Web Programming ★	3
✓ CPSC 236	Selected Computer Languages★ **COMP238**	3
CPSC 237	Mobile App Development for Smart Devices ★	3
CPSC 315^	Internet of Things (IoT)★	3
Choose one from the following (3 credits)		
CPSC 405^	Data Mining and Analysis ★	3
CPSC 406^	Data Visualization★	3
CPSC 450^	Internship★	3
CPSC 456^	Intro Computer Graphics★	3
CPSC 478	Analysis of Algorithms★	3
CPSC 480	Machine Learning★	3
CPSC 485^	Big Data Analytics★	3

FREE ELECTIVES (26-28 credits)		
✓ MIS 210	**COMP 210-Productivity Applications**	**3**
✓ MGMT 1TR	**BUSN 203-Intro to Business**	**3**
✓ CPSC 2TR	**COMP 231-Visual Programming**	**3**
✓ ENGL 101	**ENGL 101-College Writing**	**3**
✓ MIS 413	**COMP 247-Systems Analysis & Design**	**3**
✓ CPSC 2TR	**COMP 253-Client-Side Web Programming**	**3**
✓ TRNS 1TR	**GENL 111-Job Readiness**	**1**
✓ CPSC 317	**COMP 254-Server-Side Web Programming**	**3**

BC3-SRU Computer Information Systems-Programming Specialist, A.A.S. to Computing-Computer Science, B.S.		
Curriculum Category	**Credits Completed**	**Credits Needed**
Rock Studies	**14-16**	**24**
Computer Competency	**3**	**0**
Major Requirements	**21**	**30**
Free Electives	**22**	**4-6**
TOTAL CREDITS	**60-62**	**58-60**

Students need a minimum of 120 credits to graduate from SRU. If the BC3 student transfers in with 60 credits, 60 credits are required at SRU. If the student transfers in with 62 credits, 58 credits are required at SRU.