



BS in Science Informatics program
Effective Fall 2014

I. GenEd Requirement	32 sh		
A. New Student Seminar	1	E. Mathematics Requirements	(10 sh)
C. Communications	9	MATH 116 or MATH 122 Calculus	4
C1. College Writing I & II		STAT 401 Applied Statistics for Sciences	3
C2. Fundamentals of Speech		CSIT 270 Discrete Mathematical Structures	3
D. Fine and Performing Arts	3		
F. Humanities	6	IV. Choose one of the following tracks	26 sh
F1. World Literature/General Humanities			
F2. Philosophy/Religion		A. Requirements for Computer Science Track	(6 sh)
G. Computer Science	<i>CSIT 111 (0)</i>	CSIT 315 Software Engineering I	3
H. Math	<i>MATH 116 or 122 (0)</i>	CSIT 415 Software Engineering II	3
I. Natural/Physical Science	<i>CHEM 120 (0)</i>		
J. Physical Education	1	B. Requirements for Bioinformatics Track	(20 sh)
K. Social Science	9	BIOL 112 Principles of Biology I	4
American/European History		BIOL 113 Principles of Biology II	4
Non-Western Culture		BIOL 350 Microbiology	3
Social Science		CHEM 231 Organic Chemistry II	3
L. Gen Ed Elective	3	CHEM 370 Biochemistry I	3
		BIOL 434 Molecular Biology	3
II. World Languages and Cultures	3-9 sh		
A. World Languages	3-6	C. Requirements for Cheminformatics Track	(18 sh)
B. World Culture	0-3	CHEM 231 Organic Chemistry II	3
		CHEM 232 Experimental Organic Chemistry I	3
III. Major Requirements	53 sh	CHEM 370 Biochemistry I	3
		CHEM 372 Experimental Biochemistry I	3
A. Science Informatics Core	(6 sh)	BIOL 350 Microbiology	3
SCIF 110 Introduction to Science Informatics	3	BIOL 434 Molecular Biology	3
SCIF 491 Research Experience in SCIF I	3		
B. Requirements in Biology and Molecular Biology	(11 sh)	Science Informatics Electives	(6-20 sh)
BIOL 230 Cell and Molecular Biology	4	Select 6 or more s.h., not already counted in above.	
BIOL 380 Genetics	4	SCIF 391 SCIF Summer Internship	2
BIOL 487 or STAT 487 Statistical Genomics	3	CSIT 315 Software Engineering I	3
C. Requirements in Chemistry and Biochemistry	(11 sh)	CSIT 495 Topics in Computer Science for Undergraduates- Intro to Bioinformatics	3
CHEM 120 General Chemistry I	4	CSIT 432 Systems Administration	3
CHEM 121 General Chemistry II	4	CSIT 437 Web Services	3
CHEM 230 Organic Chemistry I	3	BIOL 457 Virology	3
D. Requirements in Computer Science	(15 sh)	BIOL 458 Microbial Genetics	3
CSIT 111 Fundamentals of Programming I	3	BIOL 497 Genomics	3
CSIT 112 Fundamentals of Programming II	3	BIOL 435 Experimental Molecular Biology	3
CSIT 212 Data Structures and Algorithms	3	CHEM 370 Biochemistry I	3
CSIT 337 Internet Computing	3	MATH 221 Calculus II	4
CSIT 355 Databases Systems	3	MATH 340 Probability	3
		SCIF 498 Research Experience in SCIF II	3
		V. Free electives	0-6 sh
		Science Informatics Degree Total	120 sh