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2015

## B.S. in Software Engineering 2015 curriculum

Nova Southeastern University

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# FARQUHAR COLLEGE OF ARTS AND SCIENCES DEGREE CURRICULUM SHEET | 2015 CATALOG



**Bachelor of Science - Software Engineering** 

GENERAL EDUCATION REQUIREM	MENTS	
Area/Course	Credits	Frequency
Written Composition		
6 credits at or above COMP 1500		
Open Written Communication	3	
Open Written Communication	3	
<u>Mathematics</u>		
6 credits at or above MATH 1040		
satisfied by Major	3	
satisfied by Major	3	
Arts & Humanities		
6 credits in HIST, ARTS, PHIL, HUMN, LITR, THEA,		
FILM, MUSC, DANC, WRIT, foreign language		
Open Arts & Humanities	3	
Open Arts & Humanities	3	
Social & Behavioral Sciences		
6 credits in PSYC, SOCL, ANTH, ECN, COMM, GEOG,		
GEST, INST, POLS		
Open Social & Behavioral Sciences	3	
Open Social & Behavioral Sciences	3	
<u>Science</u>		
6 credits in BIOL, MBIO, CHEM, SCIE, ENVS, PHYS		
satisfied by Major	3	
satisfied by Major	3	
Total General Education Credits	30	

	OPEN ELECTIVES		
take 3 elective credits		9	
	Total Open Electives Credits	9	

MAJOR ELECTIVES		
Select 9 credits from any 3000/4000-level CSIS, CENG,	9	
MATH, or SENG course not listed above.		
Total Major Elective Credits	9	

MAJOR		
Course	Credits	Frequency
Mathematics and Basic Sciences		1 )
MATH 2100 Calculus I	4	FW
MATH 2200 Calculus II	4	FW
MATH 3300 Introductory Linear Algebra	3	FW
MATH 4500 Probability and Statistics	3	F
Any two BIOL/CHEM/PHYS with lab courses	8	FW
Computer Science and Information Systems		
CSIS 1800 Introduction to Computer and Information Sciences	3	FW
CSIS 2000 Introduction to Database Systems	3	F
CSIS 2050 Discrete Mathematics	3	FW
CSIS 2101 Fundamentals of Computer Programming	4	FW
CSIS 3020 Web Programming and Design	3	F
CSIS 3023 Legal and Ethical Aspects of Computers	3	F
CSIS 3101 Advanced Computer Programming	4	FW
CSIS 3400 Data Structures	4	FW
CSIS 3460 Object Oriented Design	3	FW
CSIS 3500 Networks and Data Communication	3	F
CSIS 3750 Software Engineering	4	W
CSIS 3810 Operating Systems Concepts	3	FW
CSIS 4610 Design and Analysis Algorithms	3	W
<u>Technology</u>		
TECH 4350 Human-Computer Interaction	3	W
Software Engineering		
SENG 4100 Software Development Processes and Quality	3	F
SENG 4110 Measurement and Verification of Software	3	F
SENG 4750 Software Construction Technologies and Methods	3	F
SENG 4800 Software Architecture, Modeling, and Analysis	4	W
SENG 4900 Senior Capstone Design	3	W
Total Major Credits	84	

Frequency Key: F-Every Fall; W-Every Winter; FO - Odd Year Fall; FE - Even Year Fall; WO - Odd Year Winter; WE - Even Year Winter



#### FARQUHAR COLLEGE OF ARTS AND SCIENCES SAMPLE FOUR YEAR CURRICULUM | 2015 CATALOG



#### **Bachelor of Science - Software Engineering**

	Freshm	an Year	
Fall		Winter	
<u>Course</u>	<u>Credits</u>	<u>Course</u>	<b>Credits</b>
Open Written Communication	3	Open Written Communication	3
MATH 2100 Calculus I	4	Open Arts & Humanities	3
CSIS 1800 Introduction to Computer and Info. Sciences	4	MATH 2200 Calculus II	4
CSIS 2101 Fundamentals of Computer Programming	3	CSIS 3101 Advanced Computer Programming	4
Total Credits	14	Total Credits	14
	Sophon	ore Year	
Fall		Winter	
<u>Course</u>	<u>Credits</u>	<u>Course</u>	<u>Credits</u>
Any BIOL/CHEM/PHYS with lab course	4	Open Arts & Humanities	4
CSIS 2000 Introduction to Database Systems	3	Any BIOL/CHEM/PHYS with lab course	3
CSIS 2050 Discrete Mathematics	3	CSIS 3400 Data Structures	4
CSIS 3500 Networks and Data Communication	3	CSIS 3460 Object Oriented Design	3
Open Elective	3		
Total Credits	16	Total Credits	14
	Iunio	r Year	
Fall	,	Winter	
Course	Credits		Credits
<del></del>	·	Winter	Credits 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design	Credits	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering	
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers	Credits 3	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering  CSIS 3810 Operating Systems Concepts	3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design	Credits 3 3	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering	3 4
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers	Credits 3 3 3	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering  CSIS 3810 Operating Systems Concepts	3 4 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra	<u>Credits</u> 3 3 3 3	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering  CSIS 3810 Operating Systems Concepts  TECH 4350 Human-Computer Interaction	3 4 3 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective	Credits 3 3 3 3 3 15	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering  CSIS 3810 Operating Systems Concepts  TECH 4350 Human-Computer Interaction  Open Elective	3 4 3 3 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective	Credits 3 3 3 3 3 15	Winter <u>Course</u> Open Social & Behavioral Sciences  CSIS 3750 Software Engineering  CSIS 3810 Operating Systems Concepts  TECH 4350 Human-Computer Interaction  Open Elective  Total Credits	3 4 3 3 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits	Credits 3 3 3 3 3 15	Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits	3 4 3 3 3
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits Fall	Credits  3  3  3  3  3  15  Senio	Winter  Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits  r Year Winter	3 4 3 3 3 16
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits  Fall Course	Credits  3 3 3 3 3 15 Senio	Winter  Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits  r Year  Winter  Course	3 4 3 3 3 16
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits  Fall Course SENG 4100 Software Dev. Processes and Quality	Credits  3  3  3  3  3  15  Senio	Winter  Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits r Year Winter Course CSIS 4610 Design and Analysis Algorithms	3 4 3 3 3 16 Credits
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits  Fall Course SENG 4100 Software Dev. Processes and Quality SENG 4110 Measurement & Verification of Software	Credits  3 3 3 3 15 Senio  Credits 3 3	Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits  r Year  Winter  Course CSIS 4610 Design and Analysis Algorithms SENG 4800 Soft. Architecture, Modeling, & Analysis	3 4 3 3 3 16  Credits 3 4
Course Open Social & Behavioral Sciences CSIS 3020 Web Programming and Design CSIS 3023 Legal and Ethical Aspects of Computers MATH 3300 Introductory Linear Algebra Major Elective Total Credits  Fall Course SENG 4100 Software Dev. Processes and Quality SENG 4110 Measurement & Verification of Software SENG 4750 Software Construction Technologies & Methods	Credits  3 3 3 3 3 15 Senio	Course Open Social & Behavioral Sciences CSIS 3750 Software Engineering CSIS 3810 Operating Systems Concepts TECH 4350 Human-Computer Interaction Open Elective Total Credits  r Year  Winter  Course CSIS 4610 Design and Analysis Algorithms SENG 4800 Soft. Architecture, Modeling, & Analysis SENG 4900 Senior Capstone Design	3 4 3 3 16  Credits 3 4 3

TOTAL CREDITS: 120

NOTE: This sample plan is based on the student beginning at least at the level of MATH 2100: Calculus I. The plan will need to be adjusted for students who begin at a lower level.