

Mississippi State University
Bachelor of Science – Software Engineering
2010-2011
Illustrative Schedule of Courses

Freshman Year

First Semester	Second Semester
CSE 1002 Intro to CSE2	CSE 1384 Inter Computer Programming 4
MA 1713 Calculus I.....3	MA 1723 Calculus II 3
CH 1213 Fundamentals of Chemistry.....3	PH 2213 Physics I..... 3
CH 1211 Investigations in Chemistry 1	EN 1113 English Comp. II 3
EN 1103 English Comp. I.....3	CO 1003 Public Speaking..... 3
CSE 1284 Intro Computer Programming.....4	
Total Credit Hours..... 16	Total Credit Hours 16

Sophomore Year

First Semester	Second Semester
CSE 2383 Data Struc & Anal. of Algorithms...3	CSE 2813 Discrete Structures 3
ECE 3714 Digital Devices & Logic Design4	CSE 3324 Distributed Client/Server Prog. 4
MA 2733 Calculus III3	ECE 3724 Microprocessors I 4
PH 2223 Physics II.....3	MA 4 th semester Math class*..... 3
Fine Arts Elective3	IE 4613 Engineering Statistics I..... 3
Total Credit Hours..... 16	Total Credit Hours 17

Junior Year

First Semester	Second Semester
CSE 4503 Database Management Sys.3	Free Elective 3
CSE 4214 Intro to Software Engineering4	Technical Elective** 3
Social Science Elective3	CSE 4833 Intro. To Analysis of Algo. 3
CSE 4733 Operating Systems I.....3	CSE 4153 Data Com. & Com. Networks 3
BIO 1134 Biology I4	Social Science Elective..... 3
Total Credit Hours..... 17	Total Credit Hours 15

Senior Year

First Semester	Second Semester
CSE 4233 Software Arch. & Design Para.3	CSE 4283 Soft. Testing & Qual. Assurance..... 3
Security Elective3	Technical Elective** 3
CSE 4223 OR IE 4533 Project Management.....3	Technical Writing (GE 3513)..... 3
CSE 3213 Soft. Engr. Senior Project I.....3	CSE 3223 Soft. Engr. Senior Project II 3
Humanities Elective3	Humanities Elective..... 3
CSE 3981 Social & Ethical Issues in Comp 1	
Total Credit Hours..... 16	Total Credit Hours 15

Total Hours 128

*Select one of MA 2743, MA 3023, MA 3113,MA 3253

** Select the technical elective from the following (some courses require additional prerequisites):

Any 3000 or 4000-level CSE course not already required, MA not already taken for other requirements: Calculus IV (MA 2743); Differential Equations (MA 3253); Numerical Analysis (MA 4313); Probability (MA 4523). IE 3913 Engineering Economy, IE 4113 Human Factors Engineering, IE 4333 Production Control Systems I, IE 4373 Automation, IE 4393 Concurrent Engineering, IE 4513 Engineering Administration, IE 4573 Process Improvement Engineering, IE 4623 Engineering Statistics II, IE 4653 Industrial Quality Control I Microprocessors II (ECE 4723); Adv. Microprocessors (ECE 4733); Digital Systems Design (ECE 4743);

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Degree Requirements
2010-2011

Communication Skills (12 Hours)	
English Composition.....	6
Oral Communication (CO 1003)	3
Technical Writing (GE 3513)	3
Fine Arts, Humanities, Social Studies (15 Hours)	
Fine Arts Elective	3
Humanities Electives (2)	6
Social Science Electives (2)	6
Natural Sciences (14 Hours)	
Biology (BIO 1134)	4
Chemistry and lab (CH 1213/1211).....	4
Physics (PH 2213/2223)	6
Mathematics (18 Hours)	
Discrete Math (CSE 2813).....	3
Calculus (MA 1713/1723/2733)	9
Calculus IV (MA 2743), Foundations of Math (MA 3053), Linear Algebra (MA 3113) or	
Differential Equations (MA 3253).....	3
Probability and Statistics (IE 4613)	3
Computer Science and Engineering (37 Hours)	
Introduction to CSE (CSE 1002)	2
Introduction to Computer Programming (CSE 1284).....	4
Intermediate Computer Programming (CSE 1384)	4
Data Structures and Analysis of Algorithms (CSE 2383).....	3
Distributed Client Server Programming (CSE 3324)	4
Digital Devices (ECE 3714)	4
Microprocessors I (ECE 3724)	4
Data Communications (CSE 4153).....	3
Database Management Systems (CSE 4503).....	3
Operating Systems (CSE 4733)	3
Introduction to Analysis of Algorithms (CSE 4833)	3
Software Engineering (29 Hours)	
Social and Ethical Issues (CSE 3981).....	1
Introduction to Software Engineering (CSE 4214).....	4
Software Architecture and Design Paradigms (CSE 4233)	3
Security Elective (CSE 4243, CSE 4273, or CSE 4383)	3
Software Testing & Quality Assurance (CSE 4283)	3
Project Management (CSE 4223 OR IE 4533)	3
Software Engineering Senior Project I & II (CSE 3213/3223).....	6
2 Technical Electives	6
Free Electives (3 hours)	
Total Hours	128