

MS/COMPUTER SCIENCE WORKSHEET

For initial fall 2011 offering

Name: _____ Phone: (day) _____ (evening) _____
 ID: _____ Pace E-Mail: _____

BRIDGE COURSES

		Credits	Grade	Semester
CS 502	Fundamental Computer Science I Using Java	3	_____	_____
CS 504	Fundamental Computer Science II Using Java	3	_____	_____
CS 506	Computer Systems and Concepts	3	_____	_____

An entering student with limited or no previous background in the field of computer science or programming may be required to take up to 9 credits of prerequisite bridge coursework. A student with a baccalaureate in computer science should be able to waive these prerequisites. For others, some or all of the following courses may be required.

CORE REQUIREMENTS (12 credits)

CS 608	Algorithms and Computing Theory	3	_____	_____
CS 610	Introduction to Parallel and Distributed Computing	3	_____	_____
CS 612	Concepts and Structures in Internet Computing	3	_____	_____
CS 623	Database Management Systems	3	_____	_____

CONCENTRATION OPTIONS OR FREE ELECTIVES (9 credits) – See page 2 for specific course offerings

A student may choose to pursue a focused in-depth concentration in a specific area consisting of a three course sequence for a total of 9 credits. Suggested concentrations include:

- Artificial Intelligence
- Mobile Computing
- Internet Computing
- Web Security
- Network Security

COMPUTER SCIENCE ELECTIVES (3-12 credits) – See page 2 for complete listing

- Students pursuing a 9-credit concentration may select **one** elective from any of the concentration courses outside of their individual concentration or from those listed below for a total of 3 credits.
- Students who elect not to pursue an in-depth concentration, may choose individual courses contained within the suggested concentrations and from among the courses listed below for a total of 12 credits, provided course prerequisites are met.

CAPSTONE PROJECT (6 credits)

Students are required to select one of the following options

CS 691/CS 692	Computer Science Project I and II	6	_____	_____
-or-				
CS 693/CS 694	Thesis I and II	6	_____	_____

Total Credits 30

REMARKS (waivers, special conditions, etc):

Program Adviser/Date

CONCENTRATION OPTIONS

Artificial Intelligence

CS 627	Artificial Intelligence	3	_____	_____
CS 630	Intelligent Agents	3	_____	_____
CS 655	Pattern Recognition	3	_____	_____

Mobile Computing

CS 639	Mobile Application Development	3	_____	_____
CS 641	Mobile Web Content and Development	3	_____	_____
CS 643	Mobile Innovations for Global Challenges	3	_____	_____

Internet Computing

CS 644	Web Computing	3	_____	_____
CS 646	Service-Oriented Computing	3	_____	_____
CS 648	Enterprise Computing	3	_____	_____

Web Security

CS 634	Computer Networking and the Internet	3	_____	_____
CS 651	Secure Distributed System Development	3	_____	_____
CS 652	Secure Web Application Development	3	_____	_____

Network Security

CS 634	Computer Networking and the Internet	3	_____	_____
CS 653	Cryptography and Computer Security	3	_____	_____
CS 654	Security in Computer Networking	3	_____	_____

COMPUTER SCIENCE ELECTIVES

CS 600	Independent Study	1-4	_____	_____
CS 607	Simulation and Computer Network Analysis	3	_____	_____
CS 611	Principles of Programming Languages	3	_____	_____
CS 613	Compiler Construction	3	_____	_____
CS 614	Logic and Formal Verification	3	_____	_____
CS 624	Application Development with .NET and Web Services	3	_____	_____
CS 628	Automata and Computability	3	_____	_____
CS 629	Computer Graphics	3	_____	_____
CS 631	Special Topics in Computer Science	3	_____	_____
CS 632	Directed Readings in Computer Science	3	_____	_____
CS 633	Data Communications and Networks	3	_____	_____
CS 635	Topics in Telecommunications	3	_____	_____
CS 636	Optical Communications and Networks	3	_____	_____
CS 637	Wireless Communications	3	_____	_____
CS 638	Network Analysis and Design	3	_____	_____
CS 640	Modern Telecommunications Networking	3	_____	_____
CS 645	Game Level Design	3	_____	_____
CS 647	Game Model Design and Animation	3	_____	_____
CS 649	Advanced Video Game Programming	3	_____	_____
CS 648	Enterprise Computing	3	_____	_____
CS 650	Grid Computing	3	_____	_____
CS 653	Cryptography and Computer Security	3	_____	_____
CS 656	Introduction to Mainframe Computing	3	_____	_____
CS 699	Field Study	1-3	_____	_____

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Note: *Students may also select one elective from outside the computer science curriculum provided they have the necessary prerequisites and permission of their adviser.*