MSCS DEGREE REQUIREMENTS FORM last revised (6/8/09)

Name:				
Requirement A: 36 credits of approve	ed coursework			
• 21 credits- standard CS classroom	m based courses			
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Course				
Course	Semester	Grade	Credits:	
• 6 credits- CS, standard Math; ind	dependent study; MS thesis (no	external intern	ships)	
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
 Remaining 9 in any of above or: relevant grad courses. At most, 6 Course 	credits of external internship (These often rec	quire DGS approval	
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Requirement B: CORE EXAM or Mas	ster's Thesis (3.75 GPA needed to	do a thesis)		
Option:	Completion date:			
Requirement C: Must pass at least ON	IE course in TWO of following ap	oplication areas		
Course	Semester	Grade	Credits:	
Course	Semester	Grade	Credits:	
Graphics				
* Advanced Computer Graphics	* Computer Vision and Tracking			
* Advanced Computer Vision	* Experiments in Motion Capture			
* Computational Geometry	* Geometric Modeling			
* Computational Photography		* Interactive Shape Modeling		
* Computer Games		* Multimedia		
* Computer Graphics		* User Interfaces		

* Computer Vision

Computation for Science and Society

- * Advanced Topics in Numerical Analysis: Convex & Nonsmooth Optimization
- * Applied Cryptography & Network Security
- * Bioinformatics
- * Bioinformatics and Genomics
- * Computational Biology
- * Computational Fluid Dynamics
- * Computational PDEs
- * Computational Systems Biology
- * Cryptographic Tools in Deployed Systems: What Does the Padlock Mean?
- * Financial Computing I
- * High Performance Scientific Computing
- * Immersed Bound Meth
- * Information & Communication Technology for Developing Countries
- * Introduction to Cryptography
- * Introduction to Finance for CS
- * Linear Programming
- * Monte Carlo Methods
- * Numerical Methods I
- * Numerical Methods II
- * Numerical Methods for Time-Dependant PDEs
- * Scientific Computing
- * Speech Recognition
- * Topics in Numerical Analysis

Intelligent Systems

- * Advanced Computer Vision
- *Advanced Topics in Natural Language Processing
- *Artificial Intelligence
- * Computer Vision
- * Data Mining
- * Data Warehousing and Mining
- * Foundations of Machine Learning
- * Heuristic Problem Solving

Databases

- * Advanced Database Systems
- * Data Mining
- * Data Warehousing

* Finance Projects

* Heuristic Problem Solving

* High Perform Computer Architecture

- * Information Science of Marketing
- * Logic in Computer Science
- * Machine Learning
- * Mobile Robots
- * Natural Language Processing
- * Programming Semantics, Analysis & Verification by Abstract Interpretation
- * Topics in Automated Deduction
- **★**Web Search Engines
- * Database Systems
- * Distributed Storage Systems

Requirement D: Pass at least **ONE** large scale programming project course.

Course	Semester Grade Credits:	_	
* Advanced Database Systems	* Honors Compilers		
* Compiler Construction	* Info Tech Projects		
* Distributed Storage Systems	* Interactive Shape Modeling		

- Distributed Storage Systems
 Distributed Systems
 Interactive Shape Modeling
 Networks and Distributed Systems
 - * Production Quality Software
 - * Software Engineering
 - * What if a Computer Lies