Name: ____________________________________        ID #:_____________________

Requirement A: 36 credits of approved coursework

- **21 credits** - standard graduate CS classroom-based courses.
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____

- **6 credits** - standard graduate CS & Math classroom-based courses; independent study; MS thesis (no external internships)
  
  Independent study and master’s thesis require DGS approval.
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____

- **Remaining 9 credits** in any of above or: credits transferred from graduate study in CS; external internship; and relevant graduate courses. At most 6 credits of external internship. Relevant graduate courses and external internships require DGS approval.
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____
  
  Course ________________________________ Semester_________ Grade_____ Credits: ____

**Requirement B:** A student must take the three foundational courses and maintain a rolling GPA of 2.7 or better in the courses:

- G22.1170-001 Fundamental Algorithms Semester_______ Grade_____ Credits: ____ Placement Out ___
- G22.2110-001 Programming Languages Semester_______ Grade_____ Credits: ____ Placement Out ___
- G22.2250-001 Operating Systems Semester_______ Grade_____ Credits: ____ Placement Out ___

**Requirement C:** A student must pass **ONE** course in **TWO** of the following four designated application areas

Course ________________________________ Semester_________ Grade_____ Credits: ____

Course ________________________________ Semester_________ Grade_____ Credits: ____

**Graphics**

- Advanced Computer Graphics
- Advanced Computer Vision
- Computational Geometry
- Computational Photography
- Computer Games
- Computer Graphics
- Computer Vision
- Computer Vision and Tracking
- Experiments in Motion Capture
- Geometric Modeling
- Interactive Shape Modeling
- Multimedia
- User Interfaces
- Visualization
**Computation for Science and Society**

- Advanced Topics in Numerical Analysis: Convex & Nonsmooth Optimization
- Advanced Cryptography
- 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
- Financial Computing Projects
- Financial Software Projects
- High Performance Scientific Computing
- Immersed Boundary Method
- 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
- Values Embodied in Information and Communications Technology

**Intelligent Systems**

- Advanced Computer Vision
- Advanced Topics in Natural Language Processing
- Artificial Intelligence
- Computer Vision
- Data Mining
- Data Warehousing and Mining
- Deductive Verification of Reactive Systems
- Foundations of Machine Learning
- Heuristic Problem Solving
- Information Science of Marketing
- Logic in Computer Science
- Machine Learning
- Mobile Robots
- Natural Language Processing
- Optimization in Machine Learning
- Programming Semantics, Analysis & Verification by Abstract Interpretation
- Topics in Automated Deduction
- Web Search Engines

**Databases**

- Advanced Database Systems
- Data Mining
- Data Warehousing
- Database Systems
- Distributed Storage Systems

**Requirement D:** A student must complete a designated capstone course with the grade of B (3.0) or better. Alternatively, subject to requirements and prior approval of the DGS, a student may complete a master’s thesis or advance lab.

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester</th>
<th>Grade</th>
<th>Credits:</th>
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<tbody>
<tr>
<td>Advanced Computer Graphics</td>
<td></td>
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<tr>
<td>Advanced Database Systems</td>
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<tr>
<td>Compiler Construction</td>
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