# College of Engineering and Applied Sciences

## CSI & Applied Mathematics Planning Checklist (CSMAT)

### GENERAL CONCENTRATION

66 CREDIT PROGRAM

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**NAME:** ______________________________________

**ID:** ______________________________________

### General Education

- Arts
- Challenges for the 21st Century
- Foreign Language
- Humanities
- International Perspectives

### Computer Systems and Science Core (18 Credits)

- ICSI 201: Intro to Computer Science (4)
- ICSI 210: Discrete Structure (4)**
- ICSI 213: Data Structures (3)**
- ICSI 333: Prog. Hardware-Software Interface (4)**
- ICSI 403: Algorithms and Data Structures (3)

** Grade of C required to count in major

- * Pre-requisite / Co-requisite AMAT 112
- * Pre-requisite ICSI 201
- * Pre-requisite ICSI 213 / AMAT 220 recommended
- * Pre-requisite ICSI 210 & ICSI 333 / AMAT 220 recommended

### Mathematics (15 Credits)

- AMAT 112 (4): Calculus I
- AMAT 113 (4): Calculus II
- AMAT 214 (4): Calculus of Several Variables
- AMAT 220 (3): Linear Algebra

### Programming Language Principles (3 Credits)

- ICSI 311: Principles of Programming Languages (3)

** Pre-requisite ICSI 210 & ICSI 213

### Intensive Software Development (3 Credits)

- ICSI 499: Capstone Project in CSI (3)

** Pre-requisite at least 9 credits of 400+ level coursework

### Mathematics and Computational Science (21 Credits)

- AMAT 367: Discrete Probability (3)
- ICSI 401: Numerical Methods for Digital Comp. (3)
- ICSI 404: Computer Organization (3)
- ICSI 409: Automata and Formal Languages (3)
- AMAT 300+
- AMAT 300+
- AMAT 300+

** Pre-requisite AMAT 113 & 6+ credits of 200+ level MAT/CSI

* Pre-requisite AMAT 220 & CSI 213

* Pre-requisite ICSI 333 & ICSI 210 / AMAT 220 recommended

* Pre-requisite ICSI 210

### Computer Science or Mathematics Electives (6 Credits)

Choose two courses from the following list:

- ICSI _______
- ICSI _______

*Courses numbered 300-470, 500-550, or specially approved by the department

- A PHY 353: Microprocessor Applications
- A PHY 454: Microprocessor Applications Lab
- A PHY 432: Completeness and Decidability
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<th>STUDENT INFORMATION</th>
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COURSE RECOMMENDATIONS: