The Prerequisite Chart for Graduate Students

COSC 4304
Foundations of Programming (Java/UNIX)

Core (‘B’ or above)
- COSC 5100 – Graduate Seminar
- COSC 5302 – Advanced Topics in
- COSC 5315 - Foundations of Computer Science
- COSC 5313 - Analysis of Algorithms
- COSC 5328 – Computer Networks
- CPSC 5360 – Software Engineering

COSC 5369 – Graduate Project
COSC 5390/5391 – Graduate Thesis

NOTE: COSC 5100 – Graduate Seminar
Prerequisite for ALL courses that require projects or presentations.

Electives (‘C’ or above)
- CPSC 5335 – Wireless Sensor Networks
- CPSC 5333 – Distributed Computer Systems
- COSC 5340 – Data Science & Big Data Analysis
- COSC 5340 - Bioinformatics
- COSC 5335 – Advanced Computer Graphics
- COSC 5327 – Advanced Android Programming
- COSC 5325 – Computer Game Development II
- COSC 5375– Machine Learning++
- COSC 5324 – Computer Game Development I
- COSC 5309 – Intro to Sim Tech*
- CPSC 5310 – Advanced Computer Architecture
- COSC 5345 – Computer Network Security***
- COSC 5340-Embedded Systems
- COSC 5326 – Android Programming
- COSC 5340 — Cyber Security
- COSC 5340 - 3D Modeling Computer Graphics
- COSC 5340 – 3D Animation Computer Graphics
- COSC 5332– Obj. Oriented Database Systems
- COSC 5340— Big Data Science
- CPSC 5321 – Computer Graphics****
- CPSC 5340 – Database Design
- CPSC 5370 – Artificial Intelligence
- CPSC 5330 - Multimedia Processing
- CPSC 5328 – Real Time Systems

Graduation Options

Thesis
Completion of the core requirements.
Completion of two areas of computer specialization. At least a “B” (3.0) average must be maintained in the specialization areas. One “C” is permitted in these areas if it is balanced by an “A” in one other graduate level course.
Completion of COSC 5390 and COSC 5391 and submission of an acceptable thesis.
Completion of a total of 34 graduate semester hours, including the thesis with at least a 3.0 average in graduate computer science courses.
Successful oral defense of the Thesis. If failure occurs, the defense may be repeated. A second failure will cause the student to be dropped from the degree program in computer science.

Project
Completion of the Core requirement.
Completion of two areas of computer specialization. At least a “B” (3.0) average must be maintained in the specialization areas.
One “C” is permitted in these areas if it is balanced by an “A” in one other graduate level course.
All non-thesis students must take and satisfactorily complete COSC 5369, with a minimum grade of “B”. This course consists primarily of a significant implantation project and the submission of a written professional report.

Recommendations:
*MATH 2413 – Calculus I and MATH 3370 – Statistics
**MATH 3370 – Statistics and MATH 2414 – Calculus II
***MATH 2305 – Discrete Math and MATH 2413 – Calculus I
****Math 2413 – Calculus I and MATH 3328 – Linear Algebra ,++Python/Java/C++