## N N N N N N N N COSC 501Fundamentals of Data Structures and Algorithms (6 units) COSC 502 Computer Organizational and Assembly Language for Non-CS/ISMajors (3 units) MATH 263 Discrete Mathematics (3 units) M No prerequisites necessary M 1. COSC 519 Operating Systems Principles (3 units) 2. COSC 578 Database Management Systems (3 units) 3. COSC 600 Advanced Structures and Algorithm Analysis (3 units) 4. COSC 612 Software Engineering (3 units) 5. COSC 650 Computer Networks (3 units) M 1. COSC 880 COSC Project (3 units) 2. COSC 897/COSC 898 Computer Science Thesis (6 units) N -M N 3. COSC 757 Data Mining (3 units) N 1. COSC 657 Database Management Systems 11(3 units) 2. COSC 750 Neural Networks and Deep Learning (3 units) 3. COSC 710 Social Network Analysis (3 units)

4.COSC 760 Big Data Analytics (3 units)

\*COSC 501, COSC 502, and MATH 263 fulfil prerequisite requirements only and cannot be counted towards CSMS elective requirements; these courses do not fulfil any CSMS degree requirements and should not be taken unless assigned at admission

\*\*Students choosing the thesis option will complete 15 units of Core Courses, 6 units of thesis coursework, 9 units of Track Courses, and 3 units of Elective Courses. Students choosing the non-thesis option will complete 15 units of Core Courses, 3 units of P