MASTER’S OF SCIENCE IN ADVANCED COMPUTING (2020 – 2021)

**MS Advanced Computing**

SUGGESTED CURRICULUM SEQUENCE

Department of Computer Science - Morgan State University

FIRST SEMESTER

**EEGR 580/COSC 551** Cybersecurity 3

**COSC 502** Data Science and Artificial Intelligence 3

COSC 511/5XX Design and Analysis of Algorithms 3

COSC 513/5XX Cloud Computing Applications 3

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SECOND SEMESTER

**EEGR 581/COSC 558** Network Security 3

**COSC 504** Secure Cloud Computing 3

COSC 611/5XX/6XX Big Data Analysis 3

COSC 612/5XX/6xx Deep Learning in the Cloud 3

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SUMMER

COSC 512/5XX/6XX Software Engineering 3

COSC 614/5XX/6XX Cryptology and Cryptography 3 (Course Option)

OR

COSC 512/5XX/6XX Software Engineering 3

COSC 699 MS Project 3 (Project Option)

OR

COSC 692 Research Seminar 3

COSC 797/799 Thesis Guidance 3 (Thesis Option)

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TOTAL CREDIT HOURS: 30

Note: Students with Thesis option may need additional time to complete Thesis Defense (3 credits).

**Elective Courses**

COSC 511: Design and Analysis of Algorithms

COSC 512: Software Engineering

COSC 513: Cloud Computing Applications

EEGR 583: Security Management

COSC 586: Applied Quantum Cryptography

COSC 611: Big Data Analytics

COSC 612: Deep Learning in the Cloud

COSC 614: Cryptology and Cryptography

EEGR 679: Security in Network and Link Applications

INSS 696: Current Issues in Information Technology

PSYC 691: Human Factor and Behavior