FAU
FLORIDA ATLANTIC UNIVERSITY

PROGRAM CHANGE REQUEST
Graduate Programs

UGPC Approval _____
UFS Approval _____
Banner Posted _____
Catalog _____

Department Computer & Electrical Eng. and Computer Sci.

College Engineering and Computer Science

Program Name	**Effective Date** *(TERM & YEAR)*
MS in Computer Science	FALL 2017

Please explain the requested change(s) and offer rationale below or on an attachment

This proposal updates the MS in Computer Science program:

- Add the course "COT 6446 Randomized Algorithms" to the Option B, Group 1: Theory
- Replace "COT 6200 Philosophy of Computation" by "COT 6200 Theory and Philosophy of Computation"

Faculty Contact/Email/Phone	**Consult and list departments that may be affected by the change(s) and attach documentation**
Dr. Mihaela Cardei, mcardei@fau.edu	NA

Approved by	***Date***
Department Chair	3/3/17
College Curriculum Chair	3/7/17
College Dean	3/10/17
UGPC Chair	
Graduate College Dean	
UFS President	
Provost	

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

Master of Science with Major in Computer Science

The non-thesis option for this degree requires a minimum of 33 credits. The thesis option requires a minimum of 30 credits, including 6 credits of thesis. All master's degree students must take at least one course from each of the three groups listed in **Option B.**

With approval of the advisor, substitution can sometimes be made among similar courses. See the Department of Computer & Electrical and Computer Science website for updates.

Admission Requirements
Applicants for admission to the master's program are approved by the University upon the recommendation of the department. All applicants must submit with their applications the official transcripts from previous institutions attended and have official GRE scores forwarded to the University. Applications for admission are evaluated on an individual basis. As a minimum, applicants are expected to meet the following requirements. Students with non-engineering bachelor's degrees, click here for additional requirements.

1. A baccalaureate degree in Computer Science or a related field (Students without a computer science background will be expected to take additional courses);

2. At least a 3.0 (of a 4.0 minimum) GPA in the last 60 credits attempted prior to graduation;

3. A combined score (verbal + quantitative) of at least 295 on the Graduate Record Examination (GRE). GRE scores more than five years old are normally not acceptable; and

4. A score of 213 or higher in the Test of English as a Foreign Language (TOEFL).

Applicants are expected to have taken the following prerequisite courses (or equivalents) before pursuing a master's degree. In some cases, prerequisite courses may be taken after admission to the graduate program. Equivalent FAU courses follow.

Structured Computer Architecture	CDA 4102 **or**
Introduction to Microprocessor Systems	CDA 3331C **or**
CAD-Based Computer Design	CDA 4204
Data Structures and Algorithm Analysis	COP 3530
Computer Operating Systems	COP 4610
Design and Analysis of Algorithms	COT 4400
Calculus with Analytic Geometry 1	MAC 2311
Calculus with Analytic Geometry 2	MAC 2312
Stochastic Models for Computer Science	STA 4821

Submission of Plan of Study
Students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. All courses must be approved by the student's advisor. A student may not register for thesis credits prior to submitting a Plan of Study.

Degree Requirements
The **degree without thesis option** requires a minimum of 33 credits of coursework in relevant technical areas. The following rules apply to the selection of courses.

1. A minimum of 3 credits must be selected from each of the three groups listed in **Option B.**

2. A minimum of 18 credits of 6000-level courses must be completed.

3. No more than 3 credits of directed independent study may be taken.

4. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.

5. A maximum of one 4000-level course may be allowed toward the degree with the prior approval of the student's advisor. This course must be passed with a minimum grade of "B." Courses taken to make up for deficiencies will not be counted toward the degree.

6. Must have a GPA of 3.0 (out of 4.0 max.) or better.

7. All courses in the degree program must be completed with a grade of "C" or better.

8. Every non-thesis student must maintain a Research Portfolio containing research papers (book chapter, conference or journal contributions accepted or published, patents, directed independent study-based research papers, graduate course-based research papers, technical reports) done throughout the student's M.S. degree studies. Every non-thesis student is expected to have at least one research paper in the Research Portfolio prior to graduation. The Portfolio must be approved by a graduate advisor prior to graduation certification.

The **degree with thesis option** requires a minimum of 24 credits of graduate coursework (5000 level or higher) and a minimum of 6 credits of thesis work. The following rules apply to the selection of courses.

1. A minimum of 3 credits must be selected from each of the three groups listed in **Option B.**

2. A minimum of 18 credits of 6000-level courses must be completed.

3. No more than 3 credits of directed independent study may be taken.

4. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.

5. No 4000-level courses are allowed toward the degree. Courses taken to make up for deficiencies will not be counted toward the degree.

6. Must have a GPA of 3.0 (out of 4.0 max.) or better.

7. All courses in the degree program must be completed with a grade of "C" or better.

8. Every master's student must maintain a Research Portfolio containing research papers (book chapter, conference or journal contributions accepted or published, patents, directed independent study-based research papers, graduate course-based research papers, technical reports) done throughout the student's M.S. degree studies. The M.S. thesis will be added to the Research Portfolio prior to graduation. The Portfolio must be approved by a graduate advisor prior to graduation certification.

Transfer Credits
Any transfer credits toward the requirements for a master's degree in Computer Science must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. Normally no more than 6 credits of coursework (that have not been applied to a degree) can be transferred from another institution.

Option B

Group 1: Theory	
Analysis of Algorithms	COT 6405
Queueing Theory	MAP 6264
Theory and Philosophy of Computation	COT 6200
Randomized Algorithms	COT 6446

Group 2: Software Development	
Multimedia Programming	CAP 6018

Software Engineering	CEN 5035
Software Maintenance and Evolution	CEN 6027
Software Requirements Engineering	CEN 6075
Software Testing	CEN 6076
Software Architecture and Patterns	CEN 6085
Object-Oriented Software Design	COP 5339
Component Programming with .NET	COP 5595

Group 3: Computer Systems	
Computer Performance Modeling	CEN 6405
Computer Data Security	CIS 6370
Theory and Implementation of Database Systems	COP 6731
Mobile Computing	CNT 6517
Data Mining and Machine Learning	CAP 6673
Multimedia Systems	CAP 6010
Evaluation of Parallel and Distributed Systems	CDA 6122
Introduction to Neural Networks	CAP 5615
Wireless Networks	EEL 6591
Advanced Data Mining and Machine Learning	CAP 6778
Video Communication	CNT 6885
Foundations of Vision	CAP 6411
Advanced Computer Networking	CNT 6516
Vehicular Networks	CNT 6528

Top