COURSE CHANGE REQUEST
Graduate Programs

FLORIDA ATLANTIC UNIVERSITY

Department CEECS

College Engineering and Computer Science

UGPC Approval _____
UFS Approval _____
SCNS Submittal _____
Confirmed _____
Banner _____
Catalog _____

Current Course Prefix and Number	COT 6200	*Current* Course Title	Theory and Philosophy of Computation

*Syllabus must be attached for **ANY** changes to current course details. See Guidelines. Please consult and list departments that may be affected by the changes; attach documentation.*

Change title to:

Change prefix

From: To:

Change course number

From: To:

Change credits*

From: To:

Change grading

From: To:

Academic Service Learning (ASL) **

Add ☐   Remove ☐

* Review Provost Memorandum
** Academic Service Learning statement must be indicated in syllabus and approval attached to this form.

Change description to:

Change prerequisites/minimum grades to:
None

Change corequisites to:

Change registration controls to:

Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade.

Effective Term/Year for Changes:	Spring 2021	**Terminate course? Effective Term/Year for Termination:**	

Faculty Contact/Email/Phone Hanqi Zhuang/zuang@fau.edu/ 297-3413

Approved by		*Date*
Department Chair	Hanqi Zhuang — Digitally signed by Hanqi Zhuang Date: 2020.10.21 15:47:30 -04'00'	
College Curriculum Chair	Francisco Presuel-Moreno — Digitally signed by Francisco Presuel-Moreno DN: cn=Francisco Presuel-Moreno, o=Florida Atlantic University, ou=Ocean and Mechanical Engineering, email=fpresuel@fau.edu, c=US Date: 2020.10.22 12:01:23 -04'00'	
College Dean	M Cardei — Digitally signed by Mihaela Cardei DN: cn=Mihaela Cardei, o=Florida Atlantic University, ou, email=mcardei@fau.edu, c=US Date: 2020.10.25 19:44:49 -04'00'	10/25/2020
UGPC Chair		
UGC Chair		
Graduate College Dean		
UFS President		
Provost		

Email this form and syllabus to UGPC@fau.edu 10 days before the UGPC meeting.

Department of Computer & Electrical Engineering
and Computer Science
Florida Atlantic University
Course Syllabus

1. Course title/number, number of credit hours	
Philosophy of Computation COT 6200	# of credit hours = 3

2. Course prerequisites, corequisites, and where the course fits in the program of study
Prerequisites: None

3. Course logistics
Term: Location: Time:

4. Instructor contact information	
Instructor's name *Office address* *Office Hours* *Contact telephone number* *Email address*	

5. TA contact information	
TA's name *Office address* *Office Hours* *Contact telephone number* *Email address*	

6. Course description
This course covers major topics in the theory of computation and its philosophical meanings.

7. Course objectives/student learning outcomes/program outcomes	
Course objectives	To learn the power and limitations of computers, and how to utilize them in different scenarios.

8. Course evaluation method	
Midterm: 50% Final: 50%	For the project, students must first identify a related topic, either from the textbook or research papers, and get approved by the instructor. Then they should present the essential/novel ideas and technical contributions. Students should submit a short (up to 2 pages) final report for the project.

9. Course grading scale
Grading Scale:

90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79 : "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."

10. Policy on makeup tests, late work, and incompletes

Students are strongly suggested to inform the instructor in advance in the case of emergency (if possible). Makeup exams are given only if there is solid evidence of a medical or otherwise serious emergency that prevents the student of participating in the exam.

Students must turn in homework, assignment and projects on time. Students will lose 25% (after 1 day) and 50% of marks (after 2 days) if they turn in late. Submissions are not accepted after 2nd day of due date.

11. Special course requirements

NA

12. Classroom etiquette policy

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

13. Attendance policy statement

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

14. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/

15. Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few –

offered to help improve and maintain emotional well-being. For more information, go to
http://www.fau.edu/counseling/

16. Code of Academic Integrity Policy Statement

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

17. Required texts/reading

Computational Complexity: A Modern Approach.
By S. Arora and B. Barak. Cambridge University Press 2009, ISBN 978-0-521-42426-4

18. Supplementary/recommended readings

NA

19. Course topical outline, including dates for exams/quizzes, papers, completion of reading

Weekly Schedule	Topics
Week 01	The Computational Model, efficiency measure, limitation of computation
Week 02	The class P and NP and their philosophical meaning, reduction, and NP completeness
Week 03	Continue on NP/NP Completeness HW1
Week 04	Diagonalization
Week 05	Space Complexity
Week 06	Circuits and Parallel Computation HW2
Week 07	Randomized Computation I

COT 6200 (Philosophy of Computation)

Week 08	Randomized Computation II Project Selection
Week 09	Interactive Proofs I HW3
Week 10	Interactive Proofs II
Week 11	Cryptographic Applications I
Week 12	Cryptographic Applications II HW4
Week 13	Probabilistic Checkable Proofs and Approximation Algorithms I
Week 14	Probabilistic Checkable Proofs and Approximation Algorithms II
Week 15	Quantum Computation Project reports submission

COT 6200 (Philosophy of Computation)