FAU
FLORIDA ATLANTIC UNIVERSITY

NEW COURSE PROPOSAL
Graduate Programs

Department Computer and Electrical Engineering and CS

College Engineering and Computer Science

(To obtain a course number, contact erudolph@fau.edu)

Prefix **COT**	*(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)* **Lab Code**	**Type of Course** Lecture	**Course Title** Advanced Internet Systems
Number 6819			

Credits *(Review Provost Memorandum)*	**Grading** *(Select One Option)*	**Course Description** *(Syllabus must be attached; see Guidelines)*
3	Regular ◉ Sat/UnSat ○	This course introduces web technologies that are used to build back-end systems that enable scalable web applications. The course covers technical issues surrounding back-end systems and provides the background to design and develop solutions with constantly evolving web technologies.
Effective Date *(TERM & YEAR)* Fall 2020		

Prerequisites A college-level programming course.	**Corequisites**	**Registration Controls** *(Major, College, Level)* Graduate and Senior students.

Prerequisites, Corequisites and Registration Controls are enforced for all sections of course

Minimum qualifications needed to teach course: Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field.)	**List textbook information in syllabus or here** No required textbooks.
Faculty Contact/Email/Phone Hari Kalva/ hkalva@fau.edu/561-297-0511	**List/Attach comments from departments affected by new course** NA

Approved by		**Date**
Department Chair	Hanqi Zhuang *Digitally signed by Hanqi Zhuang*	2/24/2020
College Curriculum Chair	Ramesh Teegavarapu *Digitally signed by Ramesh Teegavarapu*	2/27/2020
College Dean	Mihaela Cardei *Digitally signed by Mihaela Cardei*	2/27/2020
UGPC Chair	Paul R. Peluso	03/27/2020
UGC Chair	Paul R. Peluso	03/27/2020
Graduate College Dean	*Digitally signed by member: 8ED423C9-A9FA-4DA0-B0B9-C422E945C5E7 7852D92B-2334-43D3-B364-BB8C8A5BEE19 Date: 2020.03.30 16:40:50 -04'00'*	
UFS President		
Provost		

Email this form and syllabus to UGPC@fau.edu one week before the UGPC meeting.

GRADUATE COLLEGE

FEB 2 7 2020

1. Course title/number, number of credit hours

COT 6819 Advanced Internet Systems	3 credit hours

2. Course prerequisites, corequisites, and where the course fits in the program of study

Prerequisites: A college-level programming course.

3. Course logistics

Term: Fall 2020
Class location and time: TBA

4. Instructor contact information

Instructor's name	Dr. Hari Kalva
Office address	EE 440
Office Hours	TBA
Contact telephone number	561-297-0511
Email address	hari.kalva@fau.edu

5. TA contact information

TA's name	TBA
Office address	
Office Hours	
Contact telephone number	
Email address	

6. Course description

This course introduces web technologies that are used to build back-end systems that enable scalable web applications. The course covers technical issues surrounding back-end systems and provides the background to design and develop solutions with constantly evolving web technologies.

7. Course objectives/student learning outcomes/program outcomes

Course objectives	- To understand the requirements and technical aspects of building back-end systems - To become competent with designing solutions using web technologies - To improve ability to work independently on creative and novel projects

8. Course evaluation method

2 Homework Assignments (each assignment is 20%)	40%
Midterm and final exams (each exam is 15%)	30%
Term project	30%

9. Course 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

- Assignments will be submitted on Canvas by the due date.
- Late submission will carry penalty of 10% per day.
- Incomplete grades will not be given unless there is documented evidence of medical or otherwise serious emergency.

11. Special course requirements

N/A

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.

For more information, please see the FAU Office of Student Conduct: Link to Student Conduct Policy

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. If your college has particular policies relating to cheating and plagiarism, state so here or provide a link to the full policy—but be sure the college policy does not conflict with the University Regulation.

17. Required texts/reading

No required textbooks.

18. Supplementary/recommended readings

None

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

Review of web development
Node.js
Server Programming and API Design
Cloud computing, VMs, and Containers
Databases
Storage Systems
Asynchronous Tasks and Queues
Load Balancing
Large Scale Data Processing