

 FLORIDA ATLANTIC UNIVERSITY	COURSE CHANGE REQUEST Undergraduate Programs		UUPC Approval <u>10-11-21</u> UFS Approval _____ SCNS Submittal _____ Confirmed _____ Banner Posted _____ Catalog _____
	Department Electrical Engineering and Comp Science College Engineering and Computer Science		
Current Course Prefix and Number COP 4814		Current Course Title Web Services	
<i>Syllabus must be attached for ANY changes to current course details. See Checklist. Please consult and list departments that may be affected by the changes; attach documentation.</i>			
Change title to: Foundations of Cloud Computing		Change description to: Please see attached syllabus for new course description.	
Change prefix From: _____ To: _____		Change prerequisites/minimum grades to: COP 3530 or COP 3410 with "C" or better	
Change course number From: _____ To: _____		Change corequisites to:	
Change credits* From: _____ To: _____		Change registration controls to:	
Change grading From: _____ To: _____		Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).	
Change WAC/Gordon Rule status** Add <input type="checkbox"/> Remove <input type="checkbox"/>			
Change General Education Requirements*** Add <input type="checkbox"/> Remove <input type="checkbox"/>			
<small>*Review Provost Memorandum</small> <small>**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See WAC Guidelines.</small> <small>***General Education criteria must be indicated in syllabus and approval attached to this form. See GE Guidelines.</small>			
Effective Term/Year for Changes: Spring 2022		Terminate course? Effective Term/Year for Termination:	
Faculty Contact/Email/Phone Hanqi Zhuang, zhuang@fau.edu, 561-297-3413			
Approved by Department Chair _____ College Curriculum Chair <u>Dan Meeroff</u> College Dean <u>Fred Bloetscher</u> UUPC Chair <u>Dan Meeroff</u> Undergraduate Studies Dean <u>Edward Pratt</u> UFS President _____ Provost _____		Date 9/23/2021 <u>10-4-21</u> <u>10-4-21</u> <u>10-11-21</u> <u>10-11-21</u> _____ _____	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

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1. Course title/number, number of credit hours	
Foundations of Cloud Computing - COP 4814	3 credit hours
2. Course prerequisites, corequisites, and where the course fits in the program of study	
Prerequisites: COP 3530 or COP 3410 with "C" or better	
3. Course logistics	
Term: TBD Class location and time:	
4. Instructor contact information	
Instructor's name Office address Office Hours Contact telephone number Email address	TBD
5. TA contact information	
TA's name Office address Office Hours Contact telephone number Email address	TBD
6. Course description	
Introduction to the concept of cloud computing as a new programming model for dynamic application interaction over the web. The class covers how to program web services and micro-services and how to implement, describe, register, discover, invoke, and deploy web services using web services standards, such as SOAP, WSDL, UDDI and RESTful.	
7. Course objectives/student learning outcomes/program outcomes	
Course objectives	Understanding of the issues in using existing cloud services and in designing cloud applications. Analysis of cloud components and governance aspects. Study of the value of the services provided by clouds.
Student learning outcomes & relationship to ABET a-k objectives	<ol style="list-style-type: none"> 1. Understanding of a cloud architecture 2. Understanding of what applications are appropriate for clouds 3. Practice in reading UML diagrams and patterns 4. Understanding of security and reliability problems of cloud computing 5. Understanding of what components and tools are used to deal with clouds
8. Course evaluation method	
<ul style="list-style-type: none"> • 30-40 % assignments (3 or 4) • 60% -70% final project. 	

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<ul style="list-style-type: none"> • Assignments and project will include hands-on access to real clouds 	
9. Course grading scale	
Relative grading , no curves.	
10. Policy on makeup tests, late work, and incompletes	
<p><i>Makeup tests</i> are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student from participating in the exam.</p> <p><i>Late work</i> is not acceptable unless the instructor previously agreed.</p> <p><i>Incomplete grades</i> are against the policy of the department. Unless there is solid evidence of a medical or otherwise serious emergency situation incomplete grades will not be given.</p>	
11. Special course requirements	
TBD	
12. Classroom etiquette policy	
<p>Due to the casual communication common in the online environment, students are sometimes tempted to relax their grammar, spelling, and/or professionalism. Please remember that you are adult students and professionals—your communication should be appropriate.</p> <p>Disruptive behavior is defined in the FAU Student Code of Conduct as "... activities which interfere with the educational mission within the classroom." Students who disrupt the educational experiences of other students and/or the instructor's course objectives in a face-to-face or online course are subject to disciplinary action. Such behavior impedes students' ability to learn or an instructor's ability to teach. Disruptive behavior may include, but is not limited to non-approved use of electronic devices (including cellular telephones); cursing or shouting at others in such a way as to be disruptive; or, other violations of an instructor's expectations for classroom conduct.</p>	
13. Disability policy statement	
<p>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/.</p>	
14. Disability policy statement	
<p>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 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. See University Regulation 4.001 at</p>	

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www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

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

Textbook: no textbook. Instructor's notes and publicly available materials (*) will be provided.

(*) Examples:

https://edu.google.com/programs/cloud-computing-curriculum/?modal_active=none
<https://azure.microsoft.com/en-us/overview/what-is-cloud-computing/>
<https://aws.amazon.com/what-is-cloud-computing/>

18. Supplementary/recommended readings

TBD

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

- Cloud computing: General Benefits and Architecture, Business Drivers, Main players in the Field, Overview of Security Issues, XaaS Cloud Based Service Offerings
- Key Amazon offerings: EC2, SimpleDB, S3, Simple Queue, Simple Relational Database, Elastic MapReduce, Virtual Amazon Cloud. S3 Command Line tool
- Bundling Amazon instances
- Amazon's Elastic Block Storage (EBS)
- Amazon's AWS Identity Management and Security in the Cloud
- Amazon's Virtual Private Cloud (VPC) and Directory Service
- Java AWS SDK, S3 API, Relational Database Service, SimpleDB Service, NoSQL Databases
- Amazon's Messaging in the Cloud
- Amazon's RESTful WebServices
- Elastic Load Balancing and Auto Scaling
- Introduction to Microsoft Azure
- MapReduce and Hadoop
- HIVE

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- OPSWorks