FLORIDA ATLANTIC UNIVERSITY

COURSE CHANGE REQUEST
Graduate Programs

Department CEECS

College Engineering and Computer Science

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

***Current* Course Prefix and Number**	***Current* Course Title**
EEE 5557	Introduction to Radar Systems

*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:
Graduate standing

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

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 15:51:09 -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 11:57:55 -04'00'	
College Dean	MCardei — Digitally signed by Mihaela Cardei DN: cn=Mihaela Cardei, o=Florida Atlantic University, ou, email=mcardei@fau.edu, c=US Date: 2020.10.25 19:51:42 -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 and Electrical Engineering & Computer Science Engineering
Florida Atlantic University
Course Syllabus / Policy

1. Course title/number, number of credit hours	
Introduction to Radar Systems / EEE 5557	3 credit hours
2. Course prerequisites, co-requisites, and where the course fits in the program of study	
Prerequisites: Graduate standing	
3. Course logistics	
Term: *Class location and 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	
6. Course description	
An introduction to radar systems. Topics include radar equations, pulse and tracking radars, and radar transmitters and receivers	
7. Course objectives/student learning outcomes/program outcomes	
Course objectives	This 5000 level course is intended to impart the concepts and practical aspects of modern electrical and communication systems providing advanced perspectives on relevant technological trends. The topics are specified to address the intriguing basics of classical and modern Radar systems, operational features and state-of-the-art applications. This course will indicate the interesting zones of technology not typically covered in the core curriculum
Student learning outcomes & relationship to ABET a-k objectives	1.The student will understand the fundamental aspects of radar systems and associated communication system details 2. The student will be taught about the underlying technology, operational details and applications of modern Radars 3. The student will learn basic system design on an engineering unit as applied to the Radar
8. Course evaluation method	
Broad-topics based assignments : 80% weighted via 4 units of Homework submissions Individual Projects: 20% Submission details: As indicated in the end	
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 Assignments etc.	

(1) Lecture notes plus home-works will be made available in Units/Section-by-section on the CANVAS periodically.
(2) Almost every week-end home-work homework (HW) assignment will be posted on the CANVAS with submission details as indicated therein

Incomplete grades are not in general favored as a policy of the department. Unless there is a solid evidence of medical condition/jury-duty or otherwise serious emergency/family situation incomplete grades will not be given.

11. Special course requirements

Preferable computational skill: Use of MatLab™ and /or C/C++ and basic analytics

12. Classroom etiquette policy

Attendance in class (to all on-campus students) is mandatory.

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

Text-book: M. I. Skolnik: Introduction to Radar Systems McGraw-Hill 2000
(Relevant Lecture Notes (in 6 Units) will be made available on the CANVAS periodically on *ad hoc* basis)

18. Supplementary/recommended readings

- Lecture Notes made available on the CANVAS periodically.
- B. R. Mahafza: Radar System analysis and Design Using MATLAB, CRC Press 2000

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

Topics Basics of Radar; Radar equation, Monostatic and Bistatic Radars

1. Radar Cross-section (RCS); MTI & Pulse-Doppler Radar; Tracking Radars
2. Detection of Radar signals in the Presence of Noise/Clutter
3. Radar transmitters & Receivers; radar antennas. Radar Applications (Civil & Military)