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Chief Departmental Advisor
Department of Electrical and Computer Engineering
Spring 2017
General Guidelines

- Students are responsible for the material contained in the Catalog which can be found online here: [http://catalog.odu.edu](http://catalog.odu.edu).
- Students are also responsible for knowing departmental policies. Information about our department and programs are locate here: [http://www.odu.edu/ece](http://www.odu.edu/ece).
- We will help you as much as possible-- but you have to **make good choices and take responsibility**.
Outline of Presentation

- Advising Procedures
- Reminders/Changes
- Program Revisions
- Upcoming course options
- Policies on Academic Continuance
- Special Programs

- Opportunities
- Upcoming Events
Advising Procedures

- Step 1---Prepare tentative schedule using the Plans tab in DegreeWorks
- Step 3--- Attend Group Advising session for general information.
- Step 4--- Following these sessions, meet with your Faculty Advisor and have him/her sign and date your curriculum sheet.
- Step 5--- Return the signed form to Ms. Kinney’s mail box in the ECE office. The advisor block will then be removed on March 30th.
- Step 6--- Register for your courses online, beginning the week of April 3rd. Check myODU for your Time Ticket for registration
- Problem solving??
  - Meet with Ms. Kinney (KAUF 231A) or Dr. Lakdawala (KAUF 217) or faculty advisor for more in-depth discussions.
Meeting with your Faculty Advisor

- Contact your assigned Faculty Advisor and arrange to meet with him or her.
- Your Faculty Advisor’s Office Hours are available on the ECE website: http://www.odu.edu/ece.
- Obtain the Faculty Advisor’s signature on the Curriculum Sheet and return to Ms. Kinney’s mailbox in the ECE front office.
Registration Overrides

- Students not yet officially declared as ECE major, still listed as Engineering Intended: expect Major Restriction on ECE 2XX-level courses.
- Contact Ms. Deb Kinney, dkinney@odu.edu, to process an override. Give your name and UIN and the name of the pre-approved course, including the CRN.
- For all registration errors, contact Deb Kinney, dkinney@odu.edu, for overrides, giving your UIN and a screen shot of the error message.
Limited Enrollment Courses

- **ECE 458** Instrumentation (spring and summer)
  - is restricted and requires prior approval.
  - Sign wait list at time of advising for spring and summer semesters.
- **ECE 387** Microfabrication Lab (required course for EE students only) - is restricted to the top 18 students in ECE 332 Microelectronic Materials and Processes. You may choose a technical elective to replace this class, if desired.
Upper-Level General Education Requirements

- 12-credit minor
- Double major/Double degree
- EE minor for CpE major – 6 additional credits
- CpE minor for EE major – 6 additional credits
- Modeling and Simulation minor – 6-9 additional credits for either major
- Biomedical Engineering – 9 additional credits
- Engineering Management – 3-6 additional credits
- Cyber Security – 6 additional credits
- 2 Upper Level courses outside of major and outside of College of Engineering
- CpE majors - an automatic minor in CS is built into their program
Writing Proficiency Requirements

- University Writing Proficiency requirements:
  - Pass ENGL 110C with grade of “C” or better, and
  - Pass 2nd composition course, ENGL 211C or ENGL 231C with grade of “C” or better, and
  - Pass program “W” writing-intensive course, ECE 484W or ECE 485W, with a grade of “C” or better.

*Prerequisites for “W” course: a grade of “C” or better in both writing courses.
Requirements for Major Declaration in EE or CpE

- *ECE Department will officially declare your major once the following requirements are met.*
- Completion of 30 credit hours applicable to your major
- Grade of “C” or above in MATH 211 & 212
The Senior Design Sequences

- ECE Senior Design II is split into two segments, a 2-credit preparatory course followed by a 2-credit design course
  - ECE 486 Prep for ECE Senior Design II, 2 cr – to be taken prior to ECE 487 and as a co-requisite of Senior Design I (ECE 484W or ECE 485W)
  - ECE 487 ECE Senior Design II (2 cr)
Senior Design Sequences (cont.)

- ECE 484W CpE Senior Design I OR ECE 485W EE Senior Design I
- ECE 486 Prep for ECE Senior Design II
  - Co-requisite with ECE 484W
- ECE 487 ECE Senior Design II
- ECE 488 ECE Senior Design III (optional) - can be taken as a Technical Elective if student wishes to do a three-semester-long project which began in ECE 486/487.
Points of Interest

- ECE 241, 287, and 313 all have the labs incorporated. You must register for the lab section when you register for the lecture/recitation section.

- EE only
  - Non-major engineering elective can be a course in CEE, MAE, MSIM, ENMA, or CS.
Points of Interest (contd.)

- IEEE Robotic Car Team participants register for the senior design sequence of their major, same as the rest of the seniors doing Senior Design.
- Begins in fall semester with ECE 486, ends in spring semester with ECE 487.
- Reports and presentations are still required for both semesters for the Car Team participants.
- For more information about the IEEE Robotic Car Team, please contact Dr. Oscar Gonzalez.
- 1 credit FE review course (ENGN 401) is not of value to ECE students and is no longer required.
- FE Exam is not required but is highly recommended for EE students.
Electrical Engineering
Technical Electives

- **System Science**
  - ECE 355 Intro to Networks and Data Communications - fall
  - ECE 451 Communication Systems - spring
  - ECE 455 Network Engineering and Design - spring
  - ECE 458 Instrumentation – spring and summer
  - ECE 461 Automatic Control Systems – fall

- **Physical Science**
  - ECE 454 Intro to Bioelectrics - fall
  - ECE 458 Instrumentation - spring and summer
  - ECE 472 Plasma Processing at the Nanoscale - fall
  - ECE 473 Solid State Electronics - fall
  - ECE 474 Optical Communications - spring
  - ECE 478 Lasers and Laser Application in Engineering - spring
Electrical Engineering
Technical Electives (cont.)

- **Digital Design**
  - ECE 341 Digital System Design – fall and spring
  - ECE 346 Microcontrollers - spring
  - ECE 443 Computer Architecture – fall
  - ECE 458 Instrumentation – spring and summer

- **Electrical Power**
  - ECE 303 Intro to Electric Power – fall and summer
  - ECE 323 Electromagnetics – fall and spring
  - ECE 403 Power Electronics - spring
  - ECE 404 Electric Drives - fall
  - ECE 458 Instrumentation – spring and summer
  - ECE 471 Introduction to Solar Cells
Computer Engineering Technical Electives

- **Modeling and Simulation, Medical Imaging, Computer Graphics and Visualization**
  - ECE 406 Introduction to Visualization - fall
  - ECE 407 Introduction to Game Development - spring
  - ECE 462 Introduction to Medical Image Analysis - spring
  - CS 460 Computer Graphics

- **Computer Hardware, Embedded Systems, Real-Time Systems, FPGA/VLSI Design**
  - ECE 332 Microelectronic Materials and Processes - fall
  - ECE 387 Microelectronic Fabrication Lab - spring
  - ECE 441 Advanced Digital Design and Field Programmable Gate Arrays – spring
Computer Engineering Technical Electives (cont.)

- **Computer Networks, Wireless Communications, Sensor Networks, Network Security**
  - ECE 355 Introduction to Networks and Data Communications – fall
  - ECE 416 Cyber Defense Fundamentals
  - ECE 419 Cyber Physical System Security - fall
  - ECE 455 Network Engineering and Design - spring
  - ECE 451 Communication Systems - spring
  - ECE 452 Introduction to Wireless Communication Networks - spring
  - CS 472 Network Systems Security
Additional CS Technical Electives for CpE Students

- CS 355 Principles of Programming Languages
- CS 390 Introduction to Theoretical Computer Science
- CS 454 Network Management
- CS 476 Systems Programming
- CS 487 Applied Parallel Computing
- CS 488 Principles of Compiler Construction
Technical Electives for Fall 2017

- ECE 341 Digital System Design (for EE only)
- ECE 355 Intro to Networks/Data Communication
- ECE 404 Electric Drives
- ECE 406 Introduction to Visualization
- ECE 416 Cyber Defense Fundamentals
- ECE 443 Computer Architecture (EE only)
- ECE 452 Intro to Wireless Communication Networks
- ECE 454 Intro to Bioelectrics
- ECE 461 Automatic Control Systems
- ECE 470 Foundations of Cyber Security
- ECE 471 Introduction to Solar Cells
- ECE 472 Plasma Processing at Nanoscale
- ECE 473 Solid State Electronics
- ECE 495 Topics: Power System Design and Analysis
- ECE 495 Topics: BME Principles I
- ECE 495 Topics: 4VA Drones Challenge
- ECE 495 Topics: Intelligent Machines
ECE Summer 2017 Courses

- ECE 201 Circuit Analysis I
- ECE 202 Circuit Analysis II
- ECE 287 Fundamental Circuits Lab
- ECE 303 Introduction to Electric Power
- ECE 323 Electromagnetics
- ECE 346 Microcontrollers
- ECE 381 Intro to Discrete-time Signal Processing
Technical Elective for Summer 2017

- ECE 458 Instrumentation
Computer Science Courses For Summer 2017

- CS 150, 252, 333, 350, 361, 381 and 471
- CS 250 is not offered in the summer. CS 333 may be taken in its place.
- Contact CS department for up-dates.
The ECE office continuously updates our course schedules as changes are made.

Check for schedule changes:
- On the ODU website: Leo Online
- On the counter in the ECE office
- On our ECE website: [http://www.odu.edu/ece/students/undergraduate/schedules](http://www.odu.edu/ece/students/undergraduate/schedules)
Required Courses with Limited Offerings

- **EE required course**
  - ECE 303, fall and summer only, not fall

- **CpE required courses**
  - ECE 346, spring only, not fall, occasionally in summer
  - ECE 443, fall only, not is spring or summer
Departmental Policies on Academic Continuance

- A minimum grade of “C” or better is required for all Sophomore-level ECE classes - ECE 201, ECE 202, ECE 241, ECE 287.
- Grades of “C” or better are required in Math 211, Math 212, Phys 231N, CS 150, CHEM 121N and CHEM 122N.
- CS department requires a minimum grade of “C” or better in all the major courses i.e., CS 150, CS 250, CS 361, CS 350, CS 471.
- A grade of “C-” does not satisfy the requirement for “C”.
Withdrawal Policy

- University Rules will be rigorously enforced.
  - Withdrawal from a class after the published last date, March 28th, is not allowed except for reasons of health or sickness.
  - When taking a class for Grade Forgiveness, withdraw from the class if you do not expect to obtain a better grade. Do not waste your Grade Forgiveness option!
    - Grade Forgiveness may be applied once to each course taken with only the second grade calculated in the GPA. Grades obtained for any additional retakes of the course will be included in the GPA calculation.
    - Grade Forgiveness can only be applied to 5 courses
Linked Programs

- **BS/Master’s programs**
  - For high-achieving students (GPA >3.0)
  - 6 credits (2 technical electives) can count towards both BS and MS/ME
  - Designed to allow students to complete both degrees in shorter period of time

- **BS/PhD program**
  - For very high-achieving students (GPA >3.5)
  - Some reduction in course requirements
  - Designed to speed up time to complete the PhD degree.
  - Intensive research required

- **Plan early for both programs**
  - See Dr. Dimitrie Popescu, GPD, for more information
  - Preferably the application process should begin by junior year. However, applications **must** be submitted by **beginning of senior year**.
  - BS/Master’s - 400/500 level courses **must** be taken at the 500-level. Graduate tuition rates will apply to these courses.
Double Majors/Double Degrees

- Double majors meet all requirements for each major but have less than 150 total credits. Double Degrees meet all requirements but have 150 total credits or more.
- EE/CpE - could be either depending on total credits at end of both programs
- CpE/CS - developed to yield Double Degree with 150 or more credits required
- EE/Physics – developed to yield Double Degree with 150 or more credits required
- CpE/Cyber Security – developed to yield Double Degree with 150 or more credits required (pending)
DegreeWorks

- Students are able to follow their progress through DegreeWorks.
- Go to myODU to access DegreeWorks.
- Seniors should review their record on DegreeWorks with Ms. Kinney at advising time if any discrepancies are noticed.
Graduation Information

- Students must submit an application for graduation. It is not an automatic process. You may now apply for graduation and commencement in Leo Online.
- Applications are to be submitted 6 months prior to graduation date.
- Review DegreeWorks for any discrepancies in your record. See Ms. Kinney for rectification, if needed.
- If you minor is outside of the ECE department, contact your **minor department** for information on certification for your **minor**. (*You must declare your minor with the advisor for the department of your minor.*)
- If deferring your graduation, **you must reapply for graduation**.
Opportunities

- Undergraduate research assistants -- working with individual faculty
- Society of Women Engineers (SWE) Scholarship Competition website: [https://scholarships.swe.org/applications/login.asp](https://scholarships.swe.org/applications/login.asp) Deadline February 2018
- Virginia Space Grant Consortium (VSGC) scholarships website: [http://www.vsgc.odu.edu/](http://www.vsgc.odu.edu/)
  - Up to $8500 per student per year
  - Must “team” up with ECE advisor and submit application before February 2018.
- See BCET website ([http://www.odu.edu/eng](http://www.odu.edu/eng)) and ODU financial aid website ([http://www.odu.edu/finaidoffice](http://www.odu.edu/finaidoffice)) for more listings.
Other Reminders

- Foreign Language requirement must be met in order to graduate. This is considered met by second degree students and transfer students whose AS degree meets lower-level general education requirements. Transfer students without the AS degree should also submit high school transcript to Admissions Office if requirement was met in high school (three years of foreign language or two years each of two foreign languages).

- For rising seniors planning to take the FE exam, please contact DPOR, Toni Spencer, (804) 367-8506, apelscidla@dpor.virginia.gov
  - Currently, Total cost is $175
Microsoft Imagine

- Student accounts available
- Operating Systems: Windows Client, Windows Server
- Applications: Visio, Project, OneNote
- Email Deb Kinney, dkinney@odu.edu
UPCOMING EVENTS

- ECE 487 Senior Design Presentations: April 25\textsuperscript{th}
  Juniors should consider attending a few of the presentations
- FINALS BEGIN April 26\textsuperscript{th}!!!!!!!!! GOOD LUCK
How can I find out more about Electrical and Computer Engineering Department?

- Join IEEE
- Take advantage of work/study room (K228)
- TUTORING AVAILABLE – K 228
- Make appointment with and meet your faculty advisor.
- Frequently visit the department home page for latest information: [http://www.odu.edu/ece](http://www.odu.edu/ece)