

Undergraduate Program Group Advising



Department of Electrical and
Computer Engineering
Spring 2009

General Guidelines



- Obtain the University Catalog (free!) from the ODU Bookstore. Students are responsible for the material contained in the Catalog.
- Please read and use the October 2008 Handbook for Electrical and Computer Engineering Students.
- See Ms. Deb Kinney if you need a copy, or use copy from ECE Web page:

http://eng.odu.edu/ece/pdfs/uggraduate_handbook_fall_2008.pdf

- We will help you as much as possible-- but you have to **make good choices and take responsibility.**

Advising Procedures



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- Step 1--- Fill out/update curriculum sheet with Ms. Deb Kinney. Review Degree Evaluation.
 - Step 2--- Attend Group Advising session for general information.
 - Step 3--- Following these sessions, meet your faculty advisor and have him/her sign and date your curriculum sheet.
 - Step 4--- Return the signed form to Ms. Kinney's mail box in the ECE office. The advisor block will then be removed on April 9.
 - Step 5--- Register for your courses online, beginning the week of April 13.
 - Problem solving??
 - Meet with Ms. Kinney, or Dr. Lakdawala, or faculty advisor for more in-depth discussions.

Meeting with your Faculty Advisor



- Your assigned Faculty Advisor will have a sign-up sheet available for you on his door.
- Choose a convenient time for you within the Faculty Advisor's posted Office Hours and sign up to meet with him.
- Obtain the Faculty Advisor's signature on the Curriculum Sheet and return to Ms. Kinney.

Sign-Up Sheets

- Certain courses are restricted and require prior approval.
- Sign up at time of advising.
- Sign-up sheets are available in Ms. Kinney's office for the following courses for current and subsequent semesters:
 - ECE 387 Microelectronics Fabrication Lab (recitation and lab times)* Any technical elective may be substituted for ECE 387
 - ECE 458 Instrumentation (spring and summer)

Requirements for Major Declaration in EE or CpE



- Completion of 30 credit hours applicable to your major
- 30 credit hours to include ENGN 110 & 111, MATH 211 & 212, PHYS 231N, CS 150 and ENGL 110C
- Grade of “C” or above in MATH 211 & 212, PHYS 231N and CS 150

Points of Interest

- ECE 241 and 313 have the lab incorporated and are 4 credits. You must register for the lab section when you register for the lecture section.
- ECE 487 (ECE Design III) can be taken as an Approved or Technical Elective if student wishes to do year-long project which began in ECE 486.
- EE only
 - Non-major engineering elective can also be a CS course or an Engineering Management course.

Points of Interest (contd.)



- IEEE Robotic Car Team participants should register for the senior design sequence of ECE 486 - ECE 487 instead of ECE 485/489W - ECE 486.
- Reports and presentations are still required for both semesters for the Car Team participants.
- For more information about the IEEE Car Team, please contact Dr. Oscar Gonzalez.
- 1 credit FE review course (ENGN 401) is required.
- FE Exam is not required but is highly recommended.

Revisions to the Computer Engineering Program



- CS 381 no longer required
- CS 350 replaces CS 451, reverting to original course
- ECE 346 replaces ECE 446 (can still be used as Technical Elective for EE students and for the minor in Computer Engineering)
- ECE 489W is now Computer Engineering Design I, not II
- ECE 486 is the second Senior Design course for both EE and CpE students
- 4 Technical Electives are now available instead of 1

New Technical Electives for Computer Engineering



- ECE 381 Intro to Digital Signal Processing (fall)
- ECE 406/506 Introduction to Visualization (fall)
- ECE 441/541 Advanced Digital Design and Field Programmable Gate Arrays (spring)
- ECE 452/552 Intro to Wireless Communication Networks (fall)
- ECE 462/562 Intro to Medical Image Analysis (fall)
- ECE 480/580 Intro to Imaging Technologies for Homeland Security (spring)
- ECE 481/581 Intro to Digital Image Processing (spring)
- ECE 483/583 Embedded Systems (fall)

Computer Engineering Technical Electives



- **Specific Focus Areas**
- **Modeling and Simulation, Medical Imaging, Computer Graphics and Visualization**
 - Introduction to Discrete Event Simulation (ECE 405)
 - [Computer Graphics \(CS 460\)](#)
 - [Introduction to Visualization \(ECE/MSIM 406\)](#)
 - [Introduction to Digital Image Processing \(ECE 481\)](#)
 - [Introduction to Medical Image Analysis \(ECE 462\)](#)
- **Computer Hardware, Embedded Systems, Real-Time Systems, FPGA/VLSI Design**
 - Microelectronic Materials and Processes (ECE 332)
 - Microelectronic Fabrication Lab (ECE 387)
 - [Advanced Digital Design and Field Programmable Gate Arrays \(ECE 441\)](#)
 - VLSI System Design (ECE 482)
 - [Embedded Systems \(ECE 483\)](#)

Computer Engineering Technical Electives (cont.)



- **Computer Networks, Wireless Communications, Sensor Networks, Network Security**
 - Introduction to Networks and Data Communications (ECE 355)
 - Network Engineering and Design (ECE 455)
 - Communication Systems (ECE 451)
 - Introduction to Wireless Communication Networks (ECE 452)
 - Network Systems Security (CS 472)
- **Signal/Image Processing, Computer Vision, Pattern Recognition, Machine Intelligence**
 - Digital Signal Processing I (ECE 381)
 - Fundamentals of Digital Image Processing (New ECE 481)
 - Computer Vision (CS 461)
 - Introduction to Imaging Technologies for Homeland Security (ECE/MSIM 480)
 - Introduction to Medical Image Analysis (ECE 462)

ECE Courses for Summer 2009



- ECE 201 Circuit Analysis
- ECE 202 Circuits, Signals and Linear Systems
- ECE 287 Circuits Laboratory
- ECE 323 Electromagnetics
- ECE 458 Instrumentation

Technical Electives for Fall 2009



- ECE 341 Digital System Design
- ECE 355 Intro to Networks & Data
- ECE 381 Intro to Digital Signal Processing
- ECE 406 Introduction to Visualization
- ECE 443 Computer Architecture
- ECE 452 Intro to Wireless Communication Networks

Technical Electives for Fall 2009 (cont.)



- ECE 454 Bioelectrics
- ECE 461 Automatic Control Systems
- ECE 472 Plasma Processing at the Nanoscale
- ECE 473 Solid State Electronics
- ECE 480 Intro to Imaging Technology for Homeland Security
- ECE 483 Embedded Systems

Computer Science Courses For Summer 2009



- CS 150, 250, 252, 361, and 471
- CS 350 will not be offered

Computer Science Courses For Fall 2009



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- All CS courses required for CpE degree will be offered in the Fall 2009 semester: CS 150, 250, 252, 361, 350 and 471 (one section only for CS 361 and CS 471).
 - Contact CS department for up-dates.



ECE Schedule of Classes

- BE AWARE – The Registrar’s Office no longer publishes a printed Course Schedule! You can locate the class listings on Leo Online.
- The Guide to Enrollment is now only available on the Registrar’s website:
<http://www.odu.edu/ao/registrar/about/guide/index.shtml>
- **The ECE office continuously updates our course schedules as changes are made.**
- Check for schedule changes:
 - On our ECE website
 - On the ODU website
 - On the counter in the ECE office

Departmental Policies on Academic Continuance



- A minimum grade of “C” or better is required for all Sophomore-level ECE classes - ECE 200, ECE 201, ECE 202, ECE 241, ECE 287.
- Grades of “C” or better are required in Math 211, Math 212, Phys 231N, CS 150.
- 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 deadline for Spring 2009 is March 31.
 - Withdrawal from a class after the published last date is not allowed except for reasons of health or sickness.
 - When taking a class for Grade Forgiveness, drop 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.

Accelerated 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. Sacharia Albin, 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 - could be either depending on total credits at end of both programs
- EE/Physics – developed to yield Double Degree with 150 or more credits required

E-mail Policy

- *Reminder – All students are **REQUIRED** to activate and maintain their ODU e-mail account.
- You may forward your ODU e-mail to another account, if desired.
 - Do not allow your forwarded account to fill up.
 - This is the primary means for the ECE department to relay important information to you and filled up accounts prevent important messages from reaching you.

Graduation Information



- Students must submit an application for graduation. It is not an automatic process. Application can be found on Registrar's Office website.
- Applications are to be submitted 6 months prior to graduation date.
- See p38 in Undergraduate Student Handbook for Check-List for Graduation.
- 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.*)
- Students who have **not** passed the Exit Writing Exam **will not** graduate. Upon passing, the graduation date will be the end of the semester in which they pass the exam.
- If deferring your graduation, **you must reapply for graduation.**



New – Degree Evaluation

- Students are now able to follow their progress through their degree plan.
- This is a good tool to use to see if you may soon qualify for graduation.
- Go to Leo Online to access Degree Evaluation.
- Print copy to review with Ms. Kinney at advising time.

Opportunities



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- Undergraduate research assistants -- working with individual faculty
 - Selected scholarship and internship information in the Handbook, p. 29
 - Applications for SWE Scholarship Competition will soon be available in Deb Kinney's office – Deadline June 1, 2009.
 - Virginia Space Grant Consortium scholarships
 - Up to \$8500 per student per year
 - Must “team” up with ECE advisor and submit application before Feb 2010. Application should be completed by Jan 2010.
 - See BCET WEB site and ODU financial aid WEB site for more listings.

Other Reminders

- Foreign Language requirement must be met in order to graduate. Transfer students without AS degree should also submit high school transcript to Admissions Office if requirement was met in high school.
- New transfer students must take the Writing Sample Placement prior to their second semester at ODU.
- Plan to take the **required** Exit Writing Exam as early as possible, sometime in your junior year, or any time after achieving 58 credit hours or more.
- For rising seniors planning to take ENGN 401 and FE exam in Spring 2009
 - Exam will be given on October 24, 2009.
 - Deadline for registration (via engineering dean's office) is May 22, 2009.
 - Currently, Total cost is \$175

UPCOMING EVENTS

- ECE 486 Senior Poster and Project Presentations: Outside of Kaufman 239 on April 23
 - Juniors should consider attending a few of the presentations
- Last ECE Social – April 14
- **FINALS BEGIN April 30!!!!!!!!!!!!!! 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://eng.odu.edu/ece/>