General Guidelines
- Students are responsible for the material contained in the Catalog which can be found online here: http://catalog.odu.edu.
- The ECE Department, (Undergrad Coordinator, Faculty Advisor, CDA, and Chair) 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

Creating your plan in DegreeWorks
- Creating your plan in DegreeWorks is necessary to communicate with your advisor and digitally record what classes you plan to take. A plan should be completed through graduation and adjusted each semester as needed. Classes in your plan are used by the ECE department to better plan class sizes in upcoming semesters.
- Use the following link to follow instructional videos on how to create your plan and register from your plan: https://www.odu.edu/content/dam/odu/offices/university-registrar1/docs/degree-works-planner-links.pdf. Be sure to save your plan.
- Use ODU’s Course Search webpage to see what classes are/will be offered: https://courses.odu.edu. You can plan ahead by using past semesters as classes that are offered from the most recent spring/fall semesters are typically reoffered the following spring/fall semesters. You can also reference the Long-Term ECE course schedule: https://www.odu.edu/ece/students/undergraduate.

Meeting with your Faculty Advisor
- Contact your assigned Faculty Advisor and arrange to meet with him or her. You should have received an e-mail from Lisa Moser informing you who your faculty advisor is.
- These meetings are mainly intended for developing a mentorship relation between student and assigned faculty advisor. Please bring your resume for assistance in preparation for internships, career fairs, etc.
- Faculty advisor would be available to answer question you may have on various technical electives, in depth curriculum related questions and also possible future career opportunities.
- Your Faculty Advisor’s Office Hours are available on the ECE website: http://www.odu.edu/ece.

Advising Procedures
- Step 1—Prepare tentative schedule using the Plans tab in DegreeWorks.
- Step 2—Meet with your assigned faculty advisor. (Contact Lisa Moser if you do not know who your faculty advisor is.)
- Step 3—Attend Group Advising session, if required, or schedule an Advising Appointment with Lisa Moser for general information and DegreeWorks plan confirmation.
- Step 4—Following a group advising session or advising appointment (after a review of your DegreeWorks plan for the upcoming semesters) and after your meeting with your assigned faculty advisor, the advisor block will be removed or you will be contacted for corrections.
- Step 5—Register for your courses online. Check myODU for your Time Ticket for registration.
- Problem solving??
  - Meet with Lisa Moser (KAUF 231A) or Dr. Lakdawala (KAUF 217) or faculty advisor for more in-depth discussions.
Registration Overrides

For all registration errors, contact Lisa Moser 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 the wait list at time of advising for spring and summer semesters. The list is in Lisa Moser’s office.

- **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

- Any university approved 12-credit minor
- Double major/Double degree
- Suggested minors
  - EE minor for CpE major
  - CsE minor for EE major
  - Modeling and Simulation
  - Biomedical Engineering
  - Engineering Management
  - Cyber Security
  - Energy Engineering
- 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 – no additional CS courses are required

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 (ENGL 110C and ENGL 211C/ENGL 231C).

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**
- **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. This is helpful for students who wish to continue into the Master’s program.
**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 at any level, in CEE, MAE, MSIM, ENMA (useful for students doing a minor in ENMA), or CS (useful for students doing a minor in CS).

**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
- CS 3XX or 4XX as approved by advisor

**Concentrations in EE and CPE**

- Beginning fall 2018, students are able to declare a concentration within their major. The catalog year in the DegreeWorks must be 2018 and beyond. If not, contact DegreeWorks to get it updated, degreeworks@odu.edu
- Concentrations may be obtained by choosing at least four courses within the selected concentration.
- By choosing carefully, the courses within the concentrations can also count as Technical Electives within the major.
- To declare a concentration please contact Lisa Moser.

**Concentration Areas in Electrical Engineering**

- Electrical Engineering Concentration Areas
  - Systems and Automation Engineering (SYAM)
  - Physical Electronics (PHEL)
  - Computer Hardware Systems (CHS)
  - Power and Renewable Energy (PRE)

**Concentrations Areas in Computer Engineering**

- Computer Engineering Concentration Areas
  - Computer Hardware Systems (CHS)
  - Computer Networks (CNW)
  - Cyber Security (CYSC)

**Computer Engineering Concentrations**

- **Computer Hardware Systems**
  - Digital System Design (ECE 341)
  - Microcontrollers (ECE 346)
  - Advanced Digital Design and Field Programmable Gate Arrays (ECE 441)
  - Computer Architecture (ECE 443)
  - Embedded Systems (ECE 483)
- **Computer Networks**
  - Introduction to Networks and Data Communications (ECE 359)
  - Communication Systems (ECE 451)
  - Introduction to Wireless Communication Networks (ECE 452)
  - Network Engineering and Design (ECE 455)
  - Network Systems Security (CS 472)
Computer Engineering Concentrations (cont.)

- **Cyber Security**
  - Microcontrollers (ECE 346)
  - Introduction to Networks and Data Communications (ECE 355)
  - Cyber Defense Fundamentals (ECE 416)
  - Cyber Physical System Security (ECE 419)
  - Network Engineering and Design (ECE 455)
  - Foundations of Cyber Security (ECE 470)
  - Embedded Systems (ECE 483)

Electrical Engineering Concentrations

- **Systems & Automation Engineering**
  - Digital Signal Processing I (ECE 381)
  - Communication Systems (ECE 451)
  - Network Engineering and Design (ECE 455)
  - Instrumentation (ECE 458)
  - Automatic control Systems (ECE 461)

- **Physical Electronics**
  - Power Electronics (ECE 403)
  - Intro to Bioelectronics (ECE 454)
  - Bio Medical applications of Low Temp Plasmas (ECE 464)
  - Solar Cells (ECE 471)
  - Plasma Processing at Nano Scale (ECE 472)
  - Solid State Electronics (ECE 473)
  - Optical Communications (ECE 474)

Electrical Engineering Concentrations (cont.)

- **Computer Hardware Systems**
  - Digital System Design (ECE 341)
  - Microcontrollers (ECE 346)
  - Advanced Digital Design and Field Programmable Gate Arrays (ECE 441)
  - Computer Architecture (ECE 443)
  - Embedded Systems (ECE 483)

- **Power and Renewable Energy**
  - Introduction to Electric Power - ECE 303
  - Power Electronics - ECE 403
  - Electric Drives - ECE 441
  - Power Systems Analysis - ECE 405
  - Autonomous Control Systems - ECE 461
  - Solar Cells - ECE 471
  - Electric Vehicles - ECE 495

ECE Summer 2019 Courses*

- ECE 201 Circuit Analysis I
- ECE 202 Circuit Analysis II
- ECE 287 Fundamental Circuits Lab
- ECE 302 Linear System Analysis
- ECE 303 Introduction to Electric Power
- ECE 313 Electronic Circuits
- ECE 323 Electromagnetics
- ECE 346 Microcontrollers
- ECE 381 Intro to Discrete Time Signal Proc.
- ECE 458 Instrumentation

*Subject to minor changes

Technical Electives for Fall 2019*

- ECE 303 Introduction to Electrical Power (for CpE majors only)
- ECE 323 Electromagnetics (for CpE majors only)
- ECE 332 Microelectronic Materials and Processes (for CpE majors only)
- ECE 341 Digital Systems Design (for EE majors only)
- ECE 355 Intro to Networks & Data Communications
- ECE 404 Electric Drives
- ECE 406 Introduction to Visualization
- ECE 416 Cyber Defense Fundamentals
- ECE 443 Computer Architecture (for EE majors only)
- ECE 445 Intro to Wireless Communication Networks
- ECE 454 Introduction to Bioelectronics
- ECE 461 Automatic Control Systems
- ECE 470 Foundations of Cyber Security
- ECE 471 Introduction to Solar Cells
- ECE 472 Plasma Processing at the Nanoscale
- ECE 473 Solid State Electronics
- ECE 483 Embedded Systems
- ECE 485 Topics: Statistical Process Control
- ECE 495 Topics: BME Principles
- ECE 495 Topics: Drone Technology

*Additional Technical Electives*

- EE majors need four 400-level ECE technical elective courses with the option of one 300-level ECE technical elective course or one approved 300- or 400-level CS/MATH/Engineering course.
- CpE majors need four 400-level ECE technical elective courses with two options: (1) one 300-level ECE technical elective course and one approved 300- or 400-level CS/MATH/ENGN course; or (2) one approved 300- or 400-level CS course and one approved 300- or 400-level CS/MATH/Engineering course.
- These courses must be pre-approved by the Chief Departmental Advisor (CDA) in order to be used as substitutes.
- 3 credits of ECE 368 Internship may be substituted for a Technical Elective.

*Subject to minor changes
Required Courses with Limited Offerings

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

- **CpE required courses**
  - ECE 346, spring only, not fall, occasionally in summer
  - ECE 443, fall only, not in 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 297.
- 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 381, CS 350, CS 471.
- A grade of “C-” does not satisfy the requirement for “C”.
- Major GPA must remain above a 2.0 GPA. Refer to the ODU Catalog for more information.

Withdrawal Policy

- University Rules will be rigorously enforced.
  - 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, withdraw from the course if you do not expect to obtain a better grade. Do not waste your Grade Forgiveness option!
    - Grade Forgiveness may be applied once to a course taken with only the second grade calculated in the GPA. Grades obtained for any additional attempts 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
  - 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. Chunsheng Xin, 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 to follow their progress through DegreeWorks.
- Go to myODU to access DegreeWorks.
- Sophomores must have their Plans section completed for the following two semesters, preferably completed through graduation.
- Juniors and Seniors must have their Plans section completed for the duration of their program.
- Seniors should review their record on DegreeWorks with Lisa Moser 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 Lisa Moser for rectification, if needed.
- If your 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.)
- GPA requirements of 2.00 or better are required for your Overall GPA, your Major GPA and your Minor GPA.
- 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
  Deadline February 2019
- Virginia Space Grant Consortium (VSGC) scholarships website: http://www.vsgc.odu.edu
  - Up to $8500 per student per year
  - Must “team” up with ECE advisor and submit application before February 2019.
- See BCET website (http://www.odu.edu/eng) and ODU financial aid website (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 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 Dr. Baumgart, (757) 269-7710, hbaumgar@odu.edu
  - Currently, total cost is $95 for 4 months of access to FE PPI Learning Hub

Microsoft Imagine

- Student accounts available
- Operating Systems: Windows Client, Windows Server
- Applications: Visio, Project, OneNote
- Email Dr. Lakdawala – vlakdawa@odu.edu

UPCOMING EVENTS

- ECE 487 Senior Design Presentations: April 30th
- Juniors should consider attending a few of the presentations
- FINALS BEGIN May 1st. GOOD LUCK