Graduate Student Orientation

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Welcome to UCR and to the Electrical Engineering Graduate Program!
Important note

- Several rules and requirements are changing this year.

- **Make sure you get the correct information.** The best sources are:
  - the *2016-2017 Graduate Manual*, found on the ECE Dept. website
  - The *2016-2017 UCR Catalog*, found at catalog.ucr.edu

- You are required to become familiar with the program requirements
  - We are here to help, but you are responsible for meeting all rules and deadlines
Program overview: MS program

- Focus is on obtaining mastery of a specific area through taking advanced courses and/or completing a thesis.

- A minimum of **48 units** of graduate or upper-level undergraduate coursework is required:
  - At least **36 units** must come from “formal” graduate courses.
  - At most 6 units from EE 290 – Directed studies.

- Additional requirements depend on whether students choose a Thesis Option (Plan I) or Exam Option (Plan II).
Specific requirements in each plan:

**THESIS OPTION**

- At most 12 units may come from EE297/299
- A thesis must be submitted and defended
- Thesis presents original analysis of a well-defined subject

**EXAM OPTION**

- No EE297/299 allowed
- Must pass the Comprehensive Exam
MS Students: Comprehensive exam

- Conducted at the end of Spring and Fall quarters.
- Must solve 5 problems from a student’s major subject area
- Subject areas:
  - Computer Engineering
  - Nano-materials and Devices
  - Signals, Systems, and Machine Intelligence
- Students must pass all five courses. A second chance is given in case of failure in first attempt.
Program overview: PhD students

- Focus is on conducting **novel, independent research**

- Students are required to take a minimum of **36 units of “formal” graduate courses**
  - Note: this is a bare-minimum requirement, more courses typical

- PhD Program milestones:
  - Pass PhD Preliminary Exam (normally at end of 1\textsuperscript{st} year)
  - Pass Oral Qualifying Exam (normally at end of 2\textsuperscript{nd} year)
  - Defend PhD Thesis (normally after 5 years)

- PhD Preliminary Exam: similar to MS Comprehensive exam
  - PhD students are exempt from subjects where they received an A in the course
PhD: Oral qualifying exam

- Normally taken at the end of 2\textsuperscript{nd} year

- Students write a research report, and present orally to a committee of 5 faculty members

- Must demonstrate ability to perform cutting-edge research, including
  - results from prior research
  - in-depth understanding of research area
  - a concise plan for remaining research to be performed as part of dissertation

- Once you pass the Preliminary Exam and the Oral Qualifying Exam, you are a \textbf{PhD Candidate}
Finding an advisor

- PhD students, and MS students planning to write a Thesis, must find an advisor as soon as possible

- Most PhD students were assigned advisor at admission time
  - Please contact your advisor TODAY if you have not already done so
  - Every PhD student must have an advisor at most by 3rd quarter

- Finding a suitable advisor is crucial for success
  - Must have similar research goals
  - Must have good personal relationship and work style
Some additional requirements

- All students must be enrolled full time (normally, 12 units of graduate coursework) while in the program.

- To continue in the program, and to be eligible for any kind of financial support (Fellowship, TA, GSR) you must meet all program requirements, including (among others):
  - A minimum GPA of 3.00
  - Satisfactory research performance (for PhD students)
  - Passing exams in a timely manner

- More details found in the Graduate Manual – read it!
Cheating and Plagiarism

- UCR places very high importance in maintaining academic integrity on our campus

- Academic misconduct (e.g., cheating, copying someone else’s work, unauthorized collaboration) are **taken very seriously**

- Please do not put your self at risk – students were forced to leave UCR because of cheating
The SPEAK Test

- English-skills test, for non-native speakers
- You must pass this test to work as a Teaching Assistant (TA)
- The test is conducted several times a year
- All PhD students who are promised a TA as part of admission must pass the test before the start of the second year
- More details in the Graduate Manual
Course plans

- All students should submit a course plan
- Goal is to make sure you are on track to meet unit/exam requirements
- Plans can be changed later if needed, subject to approval
- Deadline for submission: next Wednesday, September 28
Resources

- Answers to questions relating to the graduate program are found:
  - In the ECE Graduate manual (online at ece.ucr.edu)
  - On the Graduate Division website (go to graduate.ucr.edu, follow link “Handbooks and Forms for Current students”)
  - In the UCR Catalog (at catalog.ucr.edu)

- If these fail, contact:
  - Kim Claffey, Graduate Student Services Advisor (kclaffey@ece.ucr.edu)
  - Tassos Mourikis, Graduate Advisor (mourikis@ece.ucr.edu)
## PhD student success

- Students passing the PhD preliminary exam

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students</th>
<th>Passed in 1 Attempt</th>
<th>Passed in 2 Attempts</th>
<th>Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>16</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>2013</td>
<td>27</td>
<td>23</td>
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</tr>
<tr>
<td>2014</td>
<td>20</td>
<td>16</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

- Papers published per PhD student per year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.22</td>
</tr>
<tr>
<td>2013</td>
<td>1.34</td>
</tr>
<tr>
<td>2014</td>
<td>1.46</td>
</tr>
</tbody>
</table>
UCR EE graduate student placement

- Industry:
  - Micron
  - Emulex Corporation
  - Centre for Wireless Communication
  - Cloudscaling
  - Spirent Communications
  - Western Digital
  - Qorvo (RFMD) Inc.
  - Qualcomm Research
  - Quantum Seed LLC.
  - Innovative Sensor Technology
  - LSI Corporation
  - Google
  - BroadComm
  - Magic Leap
  - Samsung Electronics Research and Development
  - Amazon
  - Intel Corporation
  - Texas Instruments
  - IBM
  - Raytheon
  - Hitachi
  - Phillips LumiLeds
  - Fairchild Semiconductor
  - Synopsis Inc.
  - Entropic Communications

- Academia and research centers
  - UNC, Chapel Hill
  - Albert Einstein College of Medicine
  - California Baptist University
  - Bilkent University
  - CSU, Bakersfield
  - University of Oxford
  - Nanjing University of Science and Technology
  - University of Science and Technology of China
  - Bangladesh University
  - Lawrence Berkeley National Laboratory
  - Lawrence Livermore National Laboratory
Thank you!

Questions?