Electrical and Computer Engineering

**Degree Awarded:** Ph.D.

**Program Website:** https://www.ece.utexas.edu/

**Characteristics Common to All Programs**

**Characteristic 1: Number of Degrees Per Year**
For each of the three most recent years, the number of degrees awarded per academic year.

- **Academic Year 2016:** 61
- **Academic Year 2017:** 61
- **Academic Year 2018:** 63

**Comments**

**Characteristic 2: Graduation Rates**
For each of the three most recent years, the percent of first-year doctoral students\(^2\) who graduated within ten years.

- **Academic Year 2016:** 45.6 %
- **Academic Year 2017:** 53.1 %
- **Academic Year 2018:** 70.5 %

Graduation rates are affected by the number of students admitted with a PhD degree objective who instead leave with a master's degree. For example, 107 students in the traditional ECE graduate program earned master's degrees in 2017-18. Of these 107 students, 26 were admitted with a PhD objective and instead graduated with the master's degree only.

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\(^1\) Programs included only if in existence three or more years. Program is defined at the 8-digit CIP code level.

\(^2\) First-year doctoral students. Those students who have matriculated as doctoral students with a doctoral degree objective.
Characteristics of Texas Public Doctoral Programs as of Fall 2020

**Characteristic 3: Average Time to Degree**

For each of the three most recent years, average of the graduates' time to degree.

- Academic Year 2016: 6.2
- Academic Year 2017: 6
- Academic Year 2018: 6.9

**Comments**

**Characteristic 4: Employment Profile (in field within one year of graduation)**

For each of the three most recent years, the number and percent of graduates by year employed, those still seeking employment, and unknown.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Employed</th>
<th>Pct Employed</th>
<th>Unknown</th>
<th>Pct Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>37</td>
<td>60.7 %</td>
<td>24</td>
<td>39.3 %</td>
</tr>
<tr>
<td>2017</td>
<td>47</td>
<td>77 %</td>
<td>14</td>
<td>23 %</td>
</tr>
<tr>
<td>2018</td>
<td>45</td>
<td>71.4 %</td>
<td>18</td>
<td>28.6 %</td>
</tr>
</tbody>
</table>

Employed numbers are known to be incomplete. This is the best information available.

**Characteristic 5: Admission Criteria**

Description of admission factors.

Information concerning admission factors can be found in the online Graduate Catalog on the Registrar’s website in the Electrical and Computer Engineering section under Admission Requirements: https://catalog.utexas.edu/graduate/fields-of-study/engineering/electrical-computer-engineering/

**Characteristic 6: Number of Core Faculty**

For each of the three most recent years, report the number of core faculty.

- Academic Year 2016: 88
- Academic Year 2017: 94
- Academic Year 2018: 91

Approximately three-fourths of the core faculty on the ECE Graduate Studies Committee (ECE GSC) are tenure track faculty in the ECE department. About one-fourth of the core faculty on the ECE GSC are from other departments (nominated and voted onto the ECE GSC by its members), including members from Aerospace Engineering, Biomedical Engineering, Mechanical Engineering, and Computer Science. One ECE GSC member has a joint appointment.

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3 For each academic year, the time to degree is defined as beginning the year students matriculated with a doctoral degree objective until the year they graduated.
with Math. The non-ECE faculty are integral to the doctoral program because they can direct the dissertation research of ECE doctoral students as sole supervisors in related fields, fostering collaboration across disciplines and departments.

**Characteristic 7: Core Faculty External Grants**

For each of the three most recent years, report (1) the number of core faculty receiving external funds, (2) average external funds per faculty, and (3) total external funds per program per academic year.\(^4\)

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Number of Core Faculty</th>
<th>Average External Funds per Faculty</th>
<th>Total External Funds per Academic Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>79</td>
<td>429,176</td>
<td>33,904,870</td>
</tr>
<tr>
<td>2017</td>
<td>81</td>
<td>426,510</td>
<td>34,547,306</td>
</tr>
<tr>
<td>2018</td>
<td>86</td>
<td>428,816</td>
<td>36,878,136</td>
</tr>
</tbody>
</table>

**Comments**

**Characteristic 8: Core Faculty Activities**

For each of the three most recent years, report the average number of discipline-related refereed papers or publications, books or book chapters, juried creative or performance accomplishments, and notices of discoveries files or patents issued per core faculty member. If figures include duplicate entries for co-authored publications, indicate the number of duplicate entries in a note.

- Academic Year 2016: 14.63
- Academic Year 2017: 9.89
- Academic Year 2018: 12.54

Although data concerning faculty activities and publications is known to be incomplete, this is the best information available. The total number is adjusted for any duplicate entries. Information about duplicate entries for co-authored publications was not collected in 2016.

**Characteristic 9: Faculty Diversity**

For each of the three most recent years, report core faculty by ethnicity (White, Black, Hispanic, Other) and gender.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Gender</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Male</td>
<td>49</td>
<td>1</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>2017</td>
<td>Male</td>
<td>51</td>
<td>1</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>2018</td>
<td>Male</td>
<td>48</td>
<td>1</td>
<td>1</td>
<td>27</td>
</tr>
</tbody>
</table>

\(^4\) All external funds received by core faculty from any source including research grants, training grants, gifts from foundations, etc., reported as expenditures.
Characteristics of Texas Public Doctoral Programs as of Fall 2020

| Female | 9 | 0 | 0 | 5 |

Comments

**Characteristic 10: Student Diversity**
For the three most recent years, report the Fall Enrollment headcount by ethnicity (White, Black, Hispanic, Other), gender, and residency status (Texas, out-of-state, etc.) in program during the prior year.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Gender</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Male</td>
<td>39</td>
<td>0</td>
<td>6</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>46</td>
</tr>
<tr>
<td>2017</td>
<td>Male</td>
<td>37</td>
<td>0</td>
<td>6</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>54</td>
</tr>
<tr>
<td>2018</td>
<td>Male</td>
<td>38</td>
<td>0</td>
<td>6</td>
<td>254</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>57</td>
</tr>
</tbody>
</table>

Comments

**Characteristic 11: Student to Core Faculty Ratio**
For each of the three most recent years, report the average of full-time student equivalent (FTSE) / average of full-time faculty equivalent (FTFE) of core faculty.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Average Full-time Student Equivalent</th>
<th>Number of Core Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>353</td>
<td>88</td>
</tr>
<tr>
<td>2017</td>
<td>361</td>
<td>94</td>
</tr>
<tr>
<td>2018</td>
<td>360</td>
<td>91</td>
</tr>
</tbody>
</table>

Comments

**Characteristic 12: Date of Last Review**
Date of last formal external review.
An external review of the ECE graduate program was conducted in spring 2017. Graduate program review materials were submitted to the Cockrell School of Engineering Dean, the Graduate School, UT System, and the Texas Higher Education Coordinating Board on a THECB-specified schedule.

**Characteristic 13: External Program Accreditation**
Name of body and date of last program accreditation review, if applicable.
SACSCOC (Commision on Colleges of the Southern Association of Colleges and Schools) only accredits the institution as a whole (UT-Austin) and does not review individual graduate programs. The University was last reaccredited by SACSCOC in 2008 and is underwent its reaffirmation of accreditation in 2018.
Characteristics of Research Programs

Characteristic 14R: Percentage of Full-time Students

Percentage of students enrolled (headcount) for the last three fall semesters.

Academic Year 2016: 81 %
Academic Year 2017: 82.6 %
Academic Year 2018: 83.7 %

Comments

Characteristic 15R: Average Institutional Financial Support Provided

For those receiving financial support, report the average monetary institutional support provided per full-time graduate student for the past three years from assistantships, scholarships, stipends, grants, and fellowships (does not include tuition or benefits). If you wish to indicate tuition and benefits in addition to the Responses here, please include amounts and reason in "Comments".

Academic Year 2016: 21,841
Academic Year 2017: 22,775
Academic Year 2018: 23,147

Comments

Characteristic 16R: Percentage Full-time Students with Institutional Financial Support

For each of the three most recent years, report the percentage of FTS with at least $1000 of annual support.

Academic Year 2016: 98.7 %
Academic Year 2017: 99.1 %
Academic Year 2018: 99.7 %

ECE graduate students employed as Graduate Research Assistantships or Teaching Assistantships (for 20 hours per week for at least four-and-a-half months in the long semesters) in 2018-19 received $10,348 in tuition coverage in addition to the average support amount of $27,300. Out-of-state students received $22,381 in tuition coverage which included $8,594 for the out-of-state portion of the tuition bill. These Graduate Research Assistants and Teaching Assistants also received $7,177 in staff health insurance benefits. A select few of our

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5 UT Austin awards five Professional Doctoral Degrees: Doctor of Audiology (AuD), Doctor of Pharmacy (PharmD), Doctor of Nursing Practice (DNP), Doctor of Jurisprudence (JD), and Doctor of Medicine (MD). All other doctoral degrees awarded by UT Austin are designated as Research Doctoral Degrees.

6 This report includes only students enrolled full time in the fall semester of the given year. Full-time enrollment is defined as enrollment for 9 hours or more of course work.
outstanding admittees received multi-year funding offers which included a combination of fellowship funds as well as Teaching Assistantships or Graduate Research Assistantships.

**Characteristic 17R: Faculty Teaching Load**
For each of the three most recent years, report the total number of semester credit hours in organized teaching courses taught per academic year by core faculty divided by the number of core faculty.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>252.7</td>
<td>270</td>
<td>246.2</td>
</tr>
</tbody>
</table>

**Comments**

**Characteristic 18R: Student Publications & Presentations**
For the three most recent years, report the number of discipline-related papers & publications, juried creative or performance accomplishments, book chapters, books, and external presentations per year by student FTE. If figures include duplicate entries for co-authored publications, indicated the number of duplicate entries in a note.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.5</td>
<td>1.98</td>
<td>1.41</td>
</tr>
</tbody>
</table>

Although data concerning student publications, presentations, etc. is known to be approximate and incomplete, this is the best information available. The total number is adjusted for any duplicate entries. Information about duplicate entries for co-authored publications was not collected in 2016.

**Characteristics of Professional Programs**

**Characteristic 19P: Average Tuition and Fees to Complete the Degree**
For the three most recent years, report the combined annual tuition and program-specific fees multiplied by the average number of years that graduate students took to complete the degree.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[Please enter information]</td>
<td>[Please enter information]</td>
<td>[Please enter information]</td>
</tr>
</tbody>
</table>

**Comments**

**Characteristic 20P: Students Passing Licensure Exams**
For the three most recent years, report the number and percentage of students in the cohort passing licensure exams. Include both first-time and repeat test takers. If there is no relevant licensure exam for the discipline, write "not applicable."

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[Please enter information]</td>
<td>[Please enter information]</td>
<td>[Please enter information]</td>
</tr>
</tbody>
</table>
Characteristics of Texas Public Doctoral Programs as of Fall 2020

Academic Year 2018: [Please enter information]

Comments