FIVE-YEAR BS IN COMPUTER ENGINEERING/MS IN ELECTRICAL ENGINEERING

Program Overview

Program Coordinator: Damodaran Radhakrishnan, (845) 257-3772, damu@newpaltz.edu
Program ID: 268
Credits: 120 UG + 30 GR
Program Length: The MS can be completed in one additional year of study if enrolled full-time, but students must complete the degree within 7 years.
Modality: In-person
Full-time/Part-time: Full-time or Part-time
Transfer Credits: 6
Capstone: Project or Thesis

Program Description

The 5-year BS in Computer Engineering + MS in Electrical Engineering program provides students with a fast-track Master of Science degree in Electrical Engineering. This program is open to SUNY New Paltz juniors who are in good academic standing and interested in pursuing a Bachelor of Science in Electrical Engineering.

Admission Requirements

To qualify for the BS in Computer Engineering + MS in Electrical Engineering program, students must have completed the first semester of their junior year in residence at SUNY New Paltz with an overall SUNY New Paltz GPA of at least 3.0.

To apply, students should:

- Complete the online graduate application via the link above (major 268)
- Upload an internal New Paltz transcript (they are free for NP students in my.newpaltz.edu)
- Provide the contact information for one faculty reference
- Pay the $60 Graduate application fee

Curriculum Requirements

Accepted students are permitted to enroll in two 500-level graduate courses (six credits). These courses, in addition to satisfying students’ bachelor’s degrees, will count toward their master’s degrees. The remaining 24 credits of the master’s requirement will be taken in the fifth year of study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGE534</td>
<td>Fault-Tolerant Design of Digital Systems</td>
<td></td>
</tr>
<tr>
<td>EGE535</td>
<td>Low Power VLSI Design</td>
<td></td>
</tr>
<tr>
<td>EGE536</td>
<td>Computer Architecture</td>
<td></td>
</tr>
<tr>
<td>EGE537</td>
<td>VLSI Design</td>
<td></td>
</tr>
<tr>
<td>EGE538</td>
<td>Antennas and Wave Propagation</td>
<td></td>
</tr>
<tr>
<td>EGE544</td>
<td>Microwave Circuits</td>
<td></td>
</tr>
<tr>
<td>Thesis Option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGE590</td>
<td>Thesis in Electrical Engineering</td>
<td></td>
</tr>
<tr>
<td>EGE593</td>
<td>Engineering Selected Topic</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

Program Requirements

Once admitted to the BS/MS program, students must maintain a 3.0 cumulative GPA in all courses through the senior year. In addition, students must earn a B or better in each of the two graduate courses that they take as undergraduates. Students not satisfying these requirements will be re-evaluated for continuation in the program.

Academic Standing Requirements for Bachelor’s/Master’s Students
A cumulative GPA of less than 3.0 in graduate-level courses taken in the undergraduate portion of a 4+1 program precludes the student’s good standing. Students with GPA of 2.75 to 2.99 strongly advised to reconsider continuing into GR program. Students below 2.75 may not continue and will be de-matriculated from GR program.

Undergraduate Program Learning Objectives
Computer Engineering (BS)

The Computer Engineering Program has continued to adopt ABET Criterion 3 (a) - (k) as its guiding outcomes, as specified below.

a) an ability to apply knowledge of mathematics, science, and engineering
b) an ability to design and conduct experiments, as well as to analyze and interpret data
c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
d) an ability to function on multi-disciplinary teams
e) an ability to identify, formulate, and solve engineering problems
f) an understanding of professional and ethical responsibility
g) an ability to communicate effectively
h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
i) a recognition of the need for, and an ability to engage in life-long learning
j) a knowledge of contemporary issues
k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
Graduate Program Learning Outcomes

Electrical Engineering (MS)

- Demonstrate a high level of expertise and competence in an area of concentration in electrical engineering.

- Play a meaningful role in research or technical development leading to significant contributions to engineering and technology.

- Demonstrate leadership skills in the workplace, function professionally in a globally competitive world, and communicate engineering results effectively.

- Demonstrate strong interpersonal and teamwork skills.