<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Units</th>
<th>Instructor</th>
<th>Days/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>31869</td>
<td>EEC 289N - Design of RF and Microwave Filters</td>
<td>3</td>
<td>Xiaohuang Liu</td>
<td>TR 10:00 - 11:50 a.m.</td>
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</tbody>
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Filters are ubiquitous components in high frequency electronic systems. Jokingly known as the “RF engineers’ bandage”, RF and microwave filters find use in band/channel selection, image rejection, anti-aliasing, and pretty much anywhere undesired signals need to be eliminated. This course intends to provide a thorough and up-to-date overview of the design theories and implementation techniques for RF and microwave filters. The targeted audience is senior undergraduate students and first-/second-year graduate students.

The topics covered in this course include:

- Review of network analysis and synthesis techniques
- Filter approximations and prototype synthesis
- Frequency and impedance transformations
- Coupled resonator filters and the coupling matrix
- Design of microstrip and waveguide filters
- Mechanical and micro-mechanical filters
- Tunable filters and wide-band filters