Use the form below to change or restore an existing course. For courses modified for the first time in CRS, please visit the Catalog Description tab and review the Catalog View information for the entire course proposal (see Description from Banner).”

For policy information related to course creation, please visit the Academic Senate Committee Courses web site (http://senate.ucr.edu/committee/?do=info&id=8).

**COURSE INFORMATION**

**COURSE PREREQUISITE**

**CATALOG DESCRIPTION**

**PRIORITY ENROLLMENT**

**SYLLABUS**

**COMMENTS**

**ATTACHMENTS**

**COURSE SUMMARY - JUSTIFICATION**

**SUMMARY**

Summary

**EE 236 | STATE AND PARAMETER ESTIMATION THEORY**

**CROSSLISTINGS:**

ME 236

**Effective Term:** Winter 2019  
**Course Type:** Standard Course

**DIFFERENCE BETWEEN THE COURSE VERSIONS**

Review the following course proposal summary prior to routing for approval. The Reviewer and Approvers will use this summary to make an assessment of the course proposal.
<table>
<thead>
<tr>
<th><strong>Course Type:</strong></th>
<th>Previous Approved</th>
<th>Proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Term:</strong></td>
<td>Winter 2015</td>
<td>Winter 2019</td>
</tr>
<tr>
<td><strong>Course Number:</strong></td>
<td>EE 236</td>
<td>EE 236</td>
</tr>
<tr>
<td><strong>Cross-List:</strong></td>
<td>ME 236</td>
<td>ME 236</td>
</tr>
<tr>
<td><strong>Course Title/Subtitle:</strong></td>
<td>STATE AND PARAMETER ESTIMATION THEORY</td>
<td>STATE AND PARAMETER ESTIMATION THEORY</td>
</tr>
<tr>
<td><strong>Short course title:</strong></td>
<td>STATE &amp; PARAMETER ESTIMTN THRY</td>
<td>STATE &amp; PARAMETER ESTIMTN THRY</td>
</tr>
<tr>
<td><strong>Catalog Description:</strong></td>
<td>4 Units, Lecture 3, Discussion 1, Prerequisite(s): EE 215 Covers auto-regressive and moving-average models; state estimation and parameter identification (including least square and maximum likelihood formulations); observability theory; synthesis of optimum inputs; Kalman-prediction (filtering and smoothing); steady-state and frequency domain analysis; online estimation; colored noise; and nonlinear filtering algorithms. Cross-listed with ME236.</td>
<td>4 Units, Discussion 1, Lecture 3 Prerequisite(s): EE 215 with grade D- or better; graduate standing; Covers Fisher information, Cramer-Rao lower bound, efficiency, and sufficient statistics; minimum variance unbiased, best linear unbiased, maximum likelihood, least squares, maximum a posteriori, and mean-squared estimation; Weiner and Kalman filtering; applications of in navigation, signal processing, machine learning, and dynamical systems. Cross-listed with ME 236. Cross-listed with ME 236</td>
</tr>
<tr>
<td><strong>Grading Type and Statement:</strong></td>
<td>Letter</td>
<td>Letter</td>
</tr>
<tr>
<td><strong>Is the course repeatable?:</strong></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Repeatability Statement:</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Repeatability Max Units:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>May a student take more than one section of the course in a single quarter?:</strong></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Repeatability Justification:</strong></td>
<td>courseDescription: The contents of the course have evolved over time as the field has progressed. The new description adheres to the original intent of the course, but the details are more relevant to what is currently taught.</td>
<td></td>
</tr>
</tbody>
</table>
Does this course content overlap with that of an existing course?: No

Credit is awarded for only one of:

Non-standard statement:

Catalog Overlap or duplication:

Syllabus Description:

Grading Breakdown:

Weekly Topic

Week 1:

Week 2:

Week 3:

Week 4:

Week 5:

Week 6:

Week 7:
Week 8:

Week 9:

Week 10:

COMMENTS

No Comments.

ATTACHMENTS

No attachments have been added.