# COURSE DETAIL

| MECHANICAL SYSTEM CONTROL |
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| **Country**<br>Korea, South |
| **Host Institution**<br>Yonsei University |
| **Program(s)**<br>Yonsei University |
| **UCEAP Course Level**<br>Upper Division |
| **UCEAP Subject Area(s)**<br>Mechanical Engineering |
| **UCEAP Course Number**<br>136 |
| **UCEAP Course Suffix** |
| **UCEAP Official Title**<br>MECHANICAL SYSTEM CONTROL |
| **UCEAP Transcript Title**<br>MECH SYSTEM CONTROL |
| **UCEAP Quarter Units**<br>4.50 |
| **UCEAP Semester Units**<br>3.00 |

**Course Description**
The course introduces the basics of designing and analyzing feedback control systems using classical control methods. The class starts with basic reviews of dynamic systems and modeling. Topics covered include: feedback control concepts, transfer functions, linear and nonlinear modeling, time response, block diagrams, system stability, steady-state errors, Root Locus diagrams, compensator design and Bode diagrams. Students learn mathematical modeling and analysis of dynamic systems, the fundamentals of feedback control theory, stability considerations, and analysis and design of feedback systems in time and frequency domains. Course objectives are understanding mathematical modeling techniques for dynamic systems, understanding of the fundamental concepts of feedback control systems, and learning controller design methods in both time and frequency domains. Textbook: Norman S. Nise, CONTROL SYSTEMS ENGINEERING.

**Language(s) of Instruction**
English

**Host Institution Course Number**
MEU3680

**Host Institution Course Title**
MECHANICAL SYSTEM CONTROL

**Host Institution Course Details**

**Host Institution Campus**

**Host Institution Faculty**

**Host Institution Degree**

**Host Institution Department**
Mechanical Engineering

**Course Last Reviewed**
2025-2026

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