

# New Course Spring 2018: ME597.001 – Model Order Reduction

## Description

This course introduces the students to the theory and application of model order reduction techniques to large scale engineering systems. The course will cover the theoretical background of model reduction and illustrate the application of different techniques on selected engineering problems. The students will show their proficiency in model reduction through the solution of regular homework problems as well as in an open ended project.

## Objectives

Upon completion of this course, the student will be able to

1. Understand the basic theory behind each model reduction methods presented in class.
2. Identify advantages, disadvantages and limitation of each technique.
3. Select appropriate MOR technique to specific problems, define requirements and assumptions.
4. Verify goodness of approximation by developing quantitative criteria.

## Contact:

For any questions regarding this course, please email the instructor at:  
[sus772@psu.edu](mailto:sus772@psu.edu).

**TIME:**  
MoWeFr  
9:05 – 9:55AM

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**LOCATION:**  
109 Sackett

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**INSTRUCTOR:**  
Dr. Stephanie  
Stockar



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**MECHANICAL AND  
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