# Mechanical Engineering (PhD)

## Degree Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Required Courses</strong></td>
<td>39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select a minimum of thirteen 500-level to 700-level courses 1</td>
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<tr>
<td><strong>Minor Courses (Optional)</strong></td>
<td>9</td>
<td></td>
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<tr>
<td>&quot;Minor Courses&quot; are approved in conjunction with the academic committee 2</td>
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<tr>
<td><strong>Research Courses</strong></td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAE 895 Doctoral Dissertation Research</td>
<td></td>
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<tr>
<td><strong>Total Hours</strong></td>
<td>72</td>
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</tbody>
</table>

1. “Required Courses” must consist a minimum of two 700-level courses, and may consist of up to five non-MAE courses approved in conjunction with the academic committee.

2. “Minor Courses” are limited to 500-level and 700-level courses only

## Additional Requirements

- Students with a previous MS degree from NCSU:
  - without minor – may transfer up to 18 credit hours
  - with minor – may transfer up to 30 credit hours
- Students with a previous MS from outside NCSU:
  - without minor – may transfer up to 18 credit hours
  - with minor – may transfer up to 18 credit hours

## Faculty

### Full Professors
- Gregory D. Buckner
- Tarek Echekki
- Tasnim Hassan
- He Huang
- Jack Ray Edwards Jr
- Srinath Ekkad
- Tiegang Fang
- Ashok Gopalarathnam
- Richard David Gould
- Xiaoning Jiang
- Richard F. Keltie
- Clement Kleinstreuer
- Andrey Valerevich Kuznetsov
- Hong Luo
- Kevin M. Lyons
- Gracious Ngaile
- Kara Jo Peters
- Afsaneh Rabiei
- Lawrence M. Silverberg
- Juei Feng Tu
- Fen Wu
- Fuh-Gwo Yuan
- Yong Zhu
- Mohammed A. Zikry

### Associate Professors
- Matthew Bryant
- Jeffrey W. Eischen
- Scott M. Ferguson
- Charles Edward Hall Jr.
- Hsiao-Ying Shadow Huang
- Andre P. Mazzoleni
- Venkat Narayanaswamy
- Brendan O’Connor
- Katherine Saul
- Alexei V. Saveliev
- Rohan A. Shirwalker
- Hooman Vahedi Tafreshi
- Christopher R. Vermillion
- Cheryl Xu

### Assistant Professors
- Mingtai Chen
- Landon Grace
- Kenneth Granlund
- Veeraraghava Raju Hasti
- Timothy Joseph Horn
Arun Kumar Kota
Jun Liu
Marie Muller
Mark R. Pankow
Jason F. Patrick
Jong Eun Ryu
Pramod K. V. Subbareddy
Jie Yin

Practice/Research/Teaching Professor
Stephen D. Terry

Emeritus Faculty
John A. Bailey
Herbert Martin Eckerlin
Francis J. Hale
Franklin D. Hart
Hassan A. Hassan
Thomas H. Hodgson
Richard R. Johnson
David S. McRae
James C. Mulligan
Robert T. Nagel
Larry H. Royster
Ronald O. Scattergood
Furman Y. Sorrell Jr.
John S. Strenkowski
Carl F. Zorowski

Lecturer
Steven Berg