# 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></td>
<td><strong>Required Courses</strong></td>
<td></td>
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<tr>
<td></td>
<td>Select a minimum of 18 credits (6 courses) 500-level to 700-level MAE courses</td>
<td>39</td>
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<td></td>
<td>Select a minimum of 6 credits (2 courses) of 700 level courses</td>
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<td></td>
<td>Select a maximum of 15 credits (5 courses) of non-MAE or MAE technical elective courses approved in conjunction with the academic committee</td>
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<tr>
<td></td>
<td><strong>Minor/Additional Courses</strong></td>
<td>9</td>
<td></td>
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<td></td>
<td>&quot;Minor/Additional Courses&quot; are approved in conjunction with the academic committee</td>
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<tr>
<td></td>
<td><strong>Research Courses</strong></td>
<td>24</td>
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<tr>
<td>MAE 895</td>
<td>Doctoral Dissertation Research (Complete a minimum of 24 research credit hours)</td>
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</tbody>
</table>

**Total Hours**

| 72 |

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
- Farhan Saifuddin Gandhi
- 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**
James Braun
Darius Carter
Mingtai Chen
Chuyi Chen
Landon Grace
Kenneth Granlund
Veeraraghava Raju Hasti
Mohammad Heiranian
Timothy Joseph Horn
Arun Kumar Kota
Donggun Lee
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

**Lecturers**
Steven Berg
William Gregory Eades

**Emeritus Faculty**
John A. Bailey
Herbert Martin Eckerlin
Francis J. Hale
Franklin D. Hart
Hassan A. Hassan