

# Woodruff School of Mechanical Engineering (2016-17 Catalog Year)

## Certificates at Georgia Tech

Certificate guidelines: [www.catalog.gatech.edu/policies/certificate-guidelines/](http://www.catalog.gatech.edu/policies/certificate-guidelines/)

Certificate	Department
Applied Physiology	Applied Physiology
Sustainable Architecture Computational Design	Architecture
Bio-Inspired Design Biomedical Science Biomolecular Technology Computational & Quantitative Biology Environmental Science Marine Science Integrative Biology	Biology
Real Estate Development	City & Regional Planning
African-American Studies American Literature and Culture Asian Affairs European Affairs Film Studies History International Affairs Latin American Affairs Literary & Cultural Studies Philosophy of Science & Technology Pre-law Scenarios, Models, and Military Games Sociology	Ivan Allen College of Liberal Arts

Certificate	Department
Accounting Business Analytics Entrepreneurship Finance IT Management International Business Marketing Operations & Supply Chain Management	Management
Biomaterials Composites Nanomaterials	Material Science & Engineering
Nuclear Engineering	Mechanical Eng.
Chinese French German Japanese Russian Spanish Linguistics	Modern Languages
Astrophysics	Physics
Biopsychology Cognitive Psychology Engineering Psychology Experimental Psychology Industrial / Organizational Psychology Social / Personality Psychology	Psychology

### Department Websites Showing Certificate Requirements:

Applied Physiology: [www.ap.gatech.edu/academic/undercer.php](http://www.ap.gatech.edu/academic/undercer.php)  
 Architecture: [www.arch.gatech.edu/architecture-minor-certificates](http://www.arch.gatech.edu/architecture-minor-certificates)  
 Biology: [www.biology.gatech.edu/undergrad/minor-biology-certificate-biology](http://www.biology.gatech.edu/undergrad/minor-biology-certificate-biology)  
 City & Regional Planning: [www.planning.gatech.edu/undergraduate-certificate-and-courses](http://www.planning.gatech.edu/undergraduate-certificate-and-courses)  
 Ivan Allen College of Liberal Arts: [www.iac.gatech.edu/academics/undergraduate-programs/certificates](http://www.iac.gatech.edu/academics/undergraduate-programs/certificates)  
 Management: [www.scheller.gatech.edu/degree-programs/undergraduate/courses-curriculum/certificates/index.html](http://www.scheller.gatech.edu/degree-programs/undergraduate/courses-curriculum/certificates/index.html)  
 Material Science & Engineering: [www.mse.gatech.edu/undergraduate/certificates](http://www.mse.gatech.edu/undergraduate/certificates)  
 Mechanical Engineering (Nuclear Engineering Certificate): [www.nre.gatech.edu/academics/nre/ug/curriculum](http://www.nre.gatech.edu/academics/nre/ug/curriculum)  
 Modern Languages: [www.modlangs.gatech.edu/degrees/certificates](http://www.modlangs.gatech.edu/degrees/certificates)  
 Physics: [www.physics.gatech.edu/academics/undergraduate/astrophysics](http://www.physics.gatech.edu/academics/undergraduate/astrophysics)  
 Psychology: [www.psychology.gatech.edu/certificates-psychology](http://www.psychology.gatech.edu/certificates-psychology)

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## Minors at Georgia Tech

- Minor Programs of Study: [www.catalog.gatech.edu/academics/minors/#minorsofferedtext](http://www.catalog.gatech.edu/academics/minors/#minorsofferedtext)
- Minor guidelines: [www.catalog.gatech.edu/academics/minors/#undergraduateminorguidelinestext](http://www.catalog.gatech.edu/academics/minors/#undergraduateminorguidelinestext)
- Form to declare or remove a minor: [www.registrar.gatech.edu/docs/pdf/MINORCHANGE.pdf](http://www.registrar.gatech.edu/docs/pdf/MINORCHANGE.pdf)
- Minor classes can be used to satisfy free electives, but not social science or humanities requirements.

<b>Aerospace Engineering</b>	<b>Leadership Studies</b>
<b>Architectural History</b>	<b>Materials Science &amp; Engineering</b>
<b>Architecture</b>	<b>Mathematics</b>
<b>Biology</b>	<b>Multi-disciplinary Design / Arts History</b>
<b>Biochemistry</b>	<b>Music</b>
<b>Biomedical Engineering</b>	<b>Music Performance</b>
<b>Chemistry</b>	<b>Music Technology</b>
<b>Chinese</b>	<b>Nuclear &amp; Radiological Engineering</b>
<b>Computational Data Analysis</b>	<b>Performance Studies</b>
<b>Computer Science (7 options)</b>	<b>Philosophy</b>
<b>Earth &amp; Atmospheric Sciences (7 options)</b>	<b>Physics</b>
<b>East Asian Studies</b>	<b>Physiology</b>
<b>Economics</b>	<b>Political Science</b>
<b>Energy Systems</b>	<b>Psychology</b>
<b>Engineering and Business</b>	<b>Public Policy</b>
<b>Film and Media Studies</b>	<b>Russian Studies</b>
<b>French</b>	<b>Science Fiction Studies</b>
<b>German</b>	<b>Science, Technology, and Society</b>
<b>Global Development</b>	<b>Scientific and Engineering Computing</b>
<b>Health, Medicine, and Society</b>	<b>Social Justice</b>
<b>History</b>	<b>Sociology</b>
<b>Industrial Design</b>	<b>Sports, Society and Technology</b>
<b>International Affairs</b>	<b>Spanish</b>
<b>Japanese</b>	<b>Sustainable Cities</b>
<b>Korean</b>	<b>Technical Communications</b>
<b>Law, Science, &amp; Technology</b>	<b>Women, Science and Technology</b>

## Concentrations in Mechanical Engineering (ME Students Only)

- Concentrations are optional, not required. They are only available to ME undergraduates.
- Concentrations are 15 hours. The classes satisfy the Design Elective, ME Elective and 9 hours of free electives.
- Concentrations are areas of specialization in a particular area within ME.
- Concentration rules and regulations: [www.me.gatech.edu/undergraduate/ug-curr/concentrations](http://www.me.gatech.edu/undergraduate/ug-curr/concentrations)

<b>Concentration</b>	<b>Program of Study</b>
<b>Automation and Robotic Systems</b>	<a href="http://www.me.gatech.edu/files/ug/conc_auto.pdf">www.me.gatech.edu/files/ug/conc_auto.pdf</a>
<b>Thermal, Fluids and Energy</b>	<a href="http://www.me.gatech.edu/files/ug/conc_therm.pdf">www.me.gatech.edu/files/ug/conc_therm.pdf</a>
<b>Micro- and Nano- Engineering</b>	<a href="http://www.me.gatech.edu/files/ug/conc_nano.pdf">www.me.gatech.edu/files/ug/conc_nano.pdf</a>
<b>Mechanics of Materials</b>	<a href="http://www.me.gatech.edu/files/ug/conc_mat.pdf">www.me.gatech.edu/files/ug/conc_mat.pdf</a>
<b>Manufacturing</b>	<a href="http://www.me.gatech.edu/files/ug/conc_mfg.pdf">www.me.gatech.edu/files/ug/conc_mfg.pdf</a>
<b>Nuclear Energy</b>	<a href="http://www.me.gatech.edu/files/ug/conc_nuc.pdf">www.me.gatech.edu/files/ug/conc_nuc.pdf</a>