Current Data and Activities
Current College Rankings

• Undergraduate program ranked 30th among publics – U.S. News & World Report
• Graduate program ranked 40th among publics – U.S. News & World Report
• Undergraduate enrollment ranked 26th – ASEE
• Research expenditures ranked 44th in nation – ASEE
  – *Top 50 for six years running*
<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Degrees Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>Bachelors 603</td>
</tr>
<tr>
<td>Graduate</td>
<td>Masters 180</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>Doctorate 65</td>
</tr>
</tbody>
</table>

**Metrics**

- 18% Female
- 13% Minority
- 45 States and 38 Countries
Freshman Class

Ginn College of Engineering

• 998 incoming freshmen in 2012
• Average ACT score of 28.5
• Average High School GPA of 3.86

Auburn University

• 3,852 incoming freshman in 2012
• Average ACT score of 26.9
• Average High School GPA of 3.78
Engineering Scholarships Awarded

<table>
<thead>
<tr>
<th>Total Amount Awarded</th>
<th>Number of Scholarships Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,044,546</td>
<td>968</td>
</tr>
</tbody>
</table>

- 38 total National Scholars
- 32 National Merit Finalists
- 5 National Achievement Finalists
- 1 National Hispanic Scholars
Fall 2012 Undergraduate Enrollment

Total Enrollment = 4157
## Fall 2012 Graduate Enrollment

<table>
<thead>
<tr>
<th>Major Title</th>
<th>Masters</th>
<th>Doctoral</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>31</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td>Biosystems Engineering</td>
<td>14</td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>15</td>
<td>66</td>
<td>81</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>74</td>
<td>35</td>
<td>109</td>
</tr>
<tr>
<td>Computer Sci &amp; Software Engr</td>
<td>73</td>
<td>56</td>
<td>129</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>105</td>
<td>66</td>
<td>171</td>
</tr>
<tr>
<td>Industrial &amp; Systems Engineering</td>
<td>73</td>
<td>56</td>
<td>129</td>
</tr>
<tr>
<td>Materials Engineering</td>
<td>11</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>54</td>
<td>62</td>
<td>116</td>
</tr>
<tr>
<td>Polymer &amp; Fiber Engineering</td>
<td>6</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>456</strong></td>
<td><strong>395</strong></td>
<td><strong>851</strong></td>
</tr>
</tbody>
</table>
College of Engineering Faculty

• 148 Tenured/Tenure-Track Faculty
• 30 Non Tenure-Track Faculty
• 59 Named Professorships
• 4 Eminent Scholar Chairs
<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Starting Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allan David</td>
<td>ChE</td>
<td>July 2012</td>
</tr>
<tr>
<td>Myoung An</td>
<td>CSSE</td>
<td>August 2011</td>
</tr>
<tr>
<td>Munawar Hafiz</td>
<td>CSSE</td>
<td>August 2011</td>
</tr>
<tr>
<td>Jeff Overbey</td>
<td>CSSE</td>
<td>September 2012</td>
</tr>
<tr>
<td>Shumin Wang</td>
<td>ECE</td>
<td>January 2011</td>
</tr>
<tr>
<td>Sean Gallagher</td>
<td>ISE</td>
<td>January 2012</td>
</tr>
<tr>
<td>Fadel Megahed</td>
<td>ISE</td>
<td>August 2012</td>
</tr>
</tbody>
</table>
### New Faculty Members (cont.)

<table>
<thead>
<tr>
<th>Name</th>
<th>Center</th>
<th>Starting Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marko Hakovirta</td>
<td>Alabama Center for Paper and Biosource Engineering</td>
<td>April 2012</td>
</tr>
<tr>
<td>Mary Robbins</td>
<td>National Center for Asphalt Technology</td>
<td>December 2012</td>
</tr>
<tr>
<td>Carolina Rodezno</td>
<td>National Center for Asphalt Technology</td>
<td>September 2011</td>
</tr>
</tbody>
</table>
Ongoing Department Chair Searches

• Aerospace Engineering
  – John Cochran will retire in May 2013
  – Jeff Suhling (ME) is chairing search

• Civil Engineering
  – Mike Stallings will return to faculty
  – Mark Nelms (EE) is chairing search

• Polymer and Fiber Engineering
  – Peter Schwartz will return to faculty
  – Mario Eden (ChE) is chairing search
Selected Faculty Awards

• Elizabeth Lipke – NSF CAREER Award
• Ahjeong Son – NSF CAREER Award
• Virginia Davis – AIChe NSE Young Investigator Award
• Weikuan Yu - Alabama Innovation Award by Governor
• Levent Yilmaz – SMSI Distinguished Service Award
• David Irwin - IEEE James H. Mulligan Education Medal
• Anton Schindler - ESCSI’s Frank G. Erskine Award
• Robert Jackson - ASME Burt L. Newkirk Award
• John Cochran - Walter Gilbert Award
Selected Faculty Awards

- Vishwani Agrawal – IEEE TTTC Lifetime Contribution Medal
- Alice Smith – IIE Albert Holzman Distinguished Educator
- Alice Smith - Fulbright Scholars Grant
- Hareesh Tippur – Fellow Soc. Experimental Mechanics
- Pradeep Lall - Fellow of IEEE
- Dave Elton – ASCE Fellow
- Bryan Chin - AWS Adams Award
## Research Expenditure Rankings

<table>
<thead>
<tr>
<th>Year</th>
<th>Ranking</th>
<th>Research Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>46</td>
<td>$49.5M</td>
</tr>
<tr>
<td>2010</td>
<td>43</td>
<td>$55.4M</td>
</tr>
<tr>
<td>2011</td>
<td>44</td>
<td>$57.4M</td>
</tr>
</tbody>
</table>

- Top 50 in research expenditures for 6 years running
Recent Facility Upgrades

- $30 million in recent renovations
- $130 million in new construction completed
- Completion of the Shelby Center
- New MRI Center for medical imaging
Vision for the
Samuel Ginn College of Engineering at Auburn University....
Thoughts on Crafting a Vision

• Our college should be an exemplary leader in technological education, research and service that anticipates, and meets, the needs of tomorrow's world

• We must define engineering education in a changing world

• Our responsibility is to provide education that prepares graduates for meaningful and productive careers

• Our graduates should be ready to contribute to the global workforce immediately
Thoughts on Crafting a Vision (cont’d)

• We must engage in research/technology that matters - research that addresses the world’s grand challenges
• We should adopt a discovery-to-application philosophy using basic research and discovery as the foundation and then translate this research into useful applications to benefit society
• The college must have faculty who exemplify excellence and innovation in pursuit and delivery of knowledge in these areas
Vision for the

Samuel Ginn College of Engineering at Auburn University.....
“The best student centered engineering experience in America!”
“The best student centered engineering experience in America!”

“A leader in providing research that improves the quality of life and industrial competitiveness”
We should aspire to be a premier college nationally!

*Immediate Goal: To competitively perform as, and achieve recognition as, a top 25 college*
We should aspire to be a premier college nationally!

• Aggressively recruit, mentor, retain & support outstanding faculty
  - we need to significantly increase the size of our faculty

• Sustain world class academic programs at the frontier of engineering education
  - renewed focus on “student achievement”
  - establish “Auburn Engineering Student Success Center”
  - modern technology and modern pedagogy
  - establish international experience office
We should aspire to be a premier college nationally!

- Increase emphasis on highly subscribed, highly competitive graduate programs
  - particular emphasis on competitively supported PhDs

- Elevate competitiveness for extramural grant funding to support scholarly research activities
  - e.g. NSF-ERC, NSF-STC, DOT-UTC, DOE-EFRC
We should aspire to be a premier college nationally!

- Perform research that improves quality of life and industrial competitiveness
  - strategic research areas
  - office for corporate partnerships and innovation
  - elevate expectations for funding and publications
- Further improve facilities (renovate Ramsay and Textile)
- Promote the SGCOE programs – improve visibility
- Development!!
Strategic Planning

• Should define the tactical elements necessary to enable progress towards defined objectives
• Need to establish our “brand” ..... leverage uniqueness
• Define mission and set priorities to support it
• Benchmark and establish metrics
• Align SGCOE with AU .... help align AU with US
• Set measurable goals that support priorities
• Measure/reward departments that contribute to priorities

• A Big Effort for a Big Goal
• Success relies on buy-in
BHAGS

• Double our research endeavor
  • Double funding and publications
  • Double PhDs awarded
  • 2 new National Centers
  • Strategic research areas

• Perform in top 25 in UG enrollment AND in degrees awarded
  • Key is retention/achievement

• Increase size of faculty to more than 200

• Reach $206M development goal
  • Focus on student and faculty support and programs

• Improve in rankings to top 40 (top 20 public) .... build reputation

• Sustain an unquestioned reputation as the Engineering Program in the State that drives economic development
Examples of New Initiatives
Establish Engineering Student Success Center

Broad student success initiative that will serve both undergraduate and graduate students

- Student Recruiting
- Curriculum Advising
- Career Mentoring and Placement Office
- Lessons Learned from Engineering Excellence Program
- Tutoring and Study Partners Program
- International Experience Office
- Curriculum Innovation and Modernization Program
- e-Learning Initiative
- Student Competitions and Professional Organizations
e-Learning Initiative

• We already do an excellent job of offering quality distance education graduate courses/degrees
  – This is an opportunity for further growth ...... with a revenue stream
  – Added opportunities for certificate programs

• We also have mature online professional development and continuing education programs
  – This is also an opportunity for growth

• Key question: How will we use various e-learning opportunities to further improve our students’ experience and level of achievement?
  – Flip the classroom?
  – Simulated laboratory experiences
  – We must be fully engaged in this evolution!
Auburn Engineering is pleased to announce that its online graduate program ranked 6th in the nation in U.S. News & World Report's 2013 Best Online Graduate Engineering Programs. In addition, our computer information technology program ranked 7th in the 2013 Best Online Graduate Computer Information Technology Programs.
<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Current</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>4,157</td>
<td>4,500</td>
</tr>
<tr>
<td>Masters</td>
<td>456</td>
<td>700*</td>
</tr>
<tr>
<td>PhD</td>
<td>397</td>
<td>800</td>
</tr>
<tr>
<td>Total Grad Enrollment</td>
<td>853</td>
<td>1,500*</td>
</tr>
<tr>
<td>Total Enrollment</td>
<td>5,010</td>
<td>6,000*</td>
</tr>
</tbody>
</table>

Keys:

- Increase number of faculty to >200
- Provide competitive graduate fellowships
- Well funded, highly subscribed research
- Increase UG scholarships awarded
“Woltosz” Fellowship Program

• “Walt and Virginia Woltosz Fellowships,” effective Spring 2013
• $325K per year

• Dean’s level
  – $32k per year for 3 years
  – $20k provided by department, $12k by COE

• College level
  – $24k per year for 3 years
  – $18k provided by department, $6k by COE

• Departmental level
  – $20k per year for 2 years
  – $16k provided by department, $4k by COE
Faculty Staffing Goals

Tenure Track Faculty  190
Lecturers/Sr. Lecturers  40
Research Professors  50

Keys:

• Named professorships and chairs
• Instructional support services
• Faculty development support and awards
• Funding to modernize course delivery and pedagogy
Research Areas of Strategic Focus

• Energy and Environment
• Cyber Security and Information Technology
• Infrastructure and Transportation
• Health, Biomedical and Pharmaceutical Engineering
• Engineered Materials and Nanotechnology
• Advanced Manufacturing
Establish Biomedical and Pharmaceutical Engineering Research Center

• Create new M.S. and Ph.D. programs
• Leverage recent investments and evolving expertise
• Central to AU’s Health Science Initiative and VCOM
• Enhance competitiveness for NIH support
• Builds upon MRI Center
Seeding Industrial Relations
Establish Industrial Relations and Innovation Center
“The Auburn Engineering & Industry Alliance”

- Establish the “front door” for industry
- Create a center that will facilitate productive partnerships with industry
  - Technical Innovation
  - Technology Deployment
  - Vehicle for Industrial Research Contracts
  - Executive/CEO Roundtable – Roberts
  - Auburn Business & Industry Innovation Alliance – Tatarchuk, others
- Ally key industrial and economic development groups with the college
- Provide training and outreach programs
- Identify & address “Regional Grand Challenges”
Establish Industrial Relations and Innovation Center

• Executive/CEO Roundtable
  – Lead: Roberts
  – Role: Assist Dean in setting goals/strategy for COE

• Auburn Business & Industry Innovation Alliance
  – Lead: Tatarchuk, Lewis, and other faculty

• Key questions:
  • What do AL industries/businesses need from AU?
  • What does Auburn need from AL industries/businesses?
Facilities

- Renovate Textile Building to house large lab functions
- Recover/Renovate remainder of Ramsay Hall
  - Polymer and Fiber Engineering Department
  - Paper Machine and Sintering Furnace
  - Alabama Power Nuclear Power Generation Systems Lab
  - Aerospace Engineering Wind Tunnels
- Need for large bay Civil Engineering research facility
## Development Report

<table>
<thead>
<tr>
<th>Year</th>
<th>Goal</th>
<th>Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>$13M</td>
<td>$21,285,708</td>
</tr>
<tr>
<td>2013</td>
<td>$16.5M</td>
<td>$340,393 as of 1/31/13</td>
</tr>
</tbody>
</table>

### Donor Breakdown of 2012 Donors

<table>
<thead>
<tr>
<th>Donor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals</td>
<td>86.8%</td>
</tr>
<tr>
<td>Parents</td>
<td>0.17%</td>
</tr>
<tr>
<td>Corporations</td>
<td>10.8%</td>
</tr>
<tr>
<td>Students</td>
<td>0.01%</td>
</tr>
<tr>
<td>Foundations</td>
<td>1.45%</td>
</tr>
<tr>
<td>Other</td>
<td>0.77%</td>
</tr>
</tbody>
</table>
Additional College Updates
Accreditation

- SACS site visit March 26-28, 2013
- SACS initial report delivered in Fall 2012
ABET Timeline

- January 1, 2016 – Request for review
- May 1, 2016 – Program draft self-studies
- July 1, 2016 – Materials submitted to ABET
  - Web ready
- Fall, 2016 – Visit, exit review
  - Draft report
- Summer, 2017 – Results
  - NGR, report, visit
Auburn Engineering: Ranked #6 in the nation

Spotlight: Auburn Engineering Graduate Online Program

Engineering News:
- Lead structural engineer for world's tallest building to deliver Ginn lecture
- Brancobody wins student poster competition for composite research
- Auburn engineer presented with National Science Foundation CAREER award to study cardiac tissue regeneration
- Schindler receives Centenary Award from Expanded Staff, Clay and Slate Institute

Upcoming Events:
- Feb 19: McKesson Presentation
- Feb 22: E-day
Communications and Marketing Contacts

• **Sally Credille:** src0007@auburn.edu; 4-3447
  – Aerospace
  – Chemical
  – Industrial and Systems
  – Polymer and Fiber
• **Morgan Stashick:** stashml@auburn.edu; 4-3591
  – Biosystems
  – Civil
  – Computer Science and Software
  – Electrical and Computer
    • Wireless
  – Mechanical
    • Materials
Administration Changes

• **Associate Dean for Academics**, Search Being Initiated
• **Ed Lewis**, Director of Engineering Development
  • Succeeds Veronica Chesnut
• **Beth Smith**, Assistant Director of Communications and Marketing
  • Succeeds Cheryl Cobb
• **Tyler Patterson**, Lead Webmaster
As Dean I Will....

• Work tirelessly to foster and build upon the strengths of the Samuel Ginn College of Engineering in Academics, Research and Outreach

• Provide a clear vision and strategic plan to further enhance the COE’s upward trajectory and goal of being a premier college nationally

• Nurture a culture of excellence, innovation, collaboration, and interdisciplinarity

• Provide leadership that will enhance the Samuel Ginn College of Engineering’s programs with local, national, and international visibility and impact for the 21st century