Our Catalyst
Between 40 and 50% of first- and second-year engineering students change majors for these reasons:
• Lack of academic preparation (course content and rigor)
• Inability to understand the necessity of some required courses

Our Focus
Provide an engaging and challenging curriculum that incorporates hands-on engineering design and problem solving to give students a clear expectation of college-level demands while introducing them to actual engineering careers.

2014-2015 Courses

Fall 2014
Introduction to Solid Modeling and Engineering Design¹
(two-semester course)

Engineering Computations with MATLAB and LabVIEW ²
(two-semester course)

Engineering Computations with MATLAB ²
(single-semester course)

Spring 2015
Engineering Computations with MATLAB ²

Engineering Computations with LabVIEW ²

Course Descriptions Available Here

@ea’s Unique Engineering Curriculum
The four-year curriculum is unique in that an engineer who is both a high school teacher and curriculum developer designed it. It has been taught for over 10 years in a traditional school setting and has a proven, high success rate – students finishing college with engineering degrees!

@ea’s Curriculum Designer
Dr. Mark Conner is the Director and lead teacher of The Engineering Academy at Hoover High School (Hoover, AL). He earned a B.S. degree in Mechanical Engineering from the University of Alabama at Birmingham (UAB) and both M.S. and Ph.D. degrees in Mechanical Engineering from Duke University. He has been a full-time high school teacher since 1996. For over a decade he served as an Adjunct Assistant Professor in the Department of Electrical and Computer Engineering at UAB.

Courses On-Demand
• Open to single students, co-ops, academies, and cover schools
• Well-suited for blended learning classroom formats and independent studies
• Accessible from PC, Mac, iOS, and Android browsers
• Course content available 24/7

“Rewindable learning” – students can pause, rewind, and replay the teaching videos as many times as needed

Homeschool Students, Co-Ops, and Cover Schools

Sponsored by and in Cooperation With

Auburn University
Samuel Ginn College of Engineering
Our Vision
Reverse the trend of high dropout rates for undergraduate engineering students by addressing the issues of academic preparation and the “why” behind the coursework.

Our Mission
Produce confident students with the breadth and depth of knowledge to excel in college-level engineering.

Our Philosophy
Give students what they need in the context of what they want.

What do students need?
To succeed in college-level engineering, students need a solid, college-prep education that focuses on math, science, and engineering – an education that challenges, stretches, and pushes them out of their comfort zones.

What do students want?
Students crave relevance. They want to know why they have to take certain classes and what difference those classes will make in their lives after college. They want an answer to the question, “When will I ever use this?” The very nature of our curriculum accomplishes that.

@ea’s Curriculum Develops Hard & Soft Skills

Hard Skills (specific technical knowledge and abilities needed in engineering school and beyond)
- Industry-standard software tools
- Data acquisition and analysis
- Basic business and entrepreneurship principles
- Lean Startup and Agile Development methodologies
- Project Management

Soft Skills
- Working cooperatively as part of a design team
- Technical communication (Engineering Notebook and technical papers)
- Formal and informal presentations
- Problem-solving, decision-making, and critical thinking
- And more

New @ea Courses Coming!
- Engineering Instrumentation and Analysis (Fall 2015)
- Engineering Design and Entrepreneurship (Fall 2016)

Program, Courses and Registration Information

Program structure and process; course descriptions; faculty and more:
The On-line Engineering Academy
Registration information and online registration link:
http://eng.auburn.edu/outreach/k-12/ea.html

Fall 2014
- Introduction to Solid Modeling and Engineering Design
  (two-semester course) $550/per student
- Engineering Computations with MATLAB and LabVIEW
  (two-semester course) $550/per student
- Engineering Computations with MATLAB
  (single-semester course) $400/per student

Spring 2015 (single-semester courses available)
- Engineering Computations with MATLAB
- Engineering Computations with LabVIEW
  $400/per student

Fall registration Through September 5
Fall courses open on-line September 2
Fall semester ends Mid-December
Spring 2015 registration October 1 - January 9
Spring semester begins January 5

For more information, contact:
Dr. George Blanks
Director of K-12 Engineering Outreach
Samuel Ginn College of Engineering
Auburn University
blankgw@auburn.edu

Auburn University is an equal opportunity educational institution/employer.

Engineering Made Easy for Parents!
- No teaching – parents simply help facilitate the course
- No STEM degree or background required
- No engineering experience needed
- No need to become content experts

How @ea Works
- Course access username/password provided with payment of course fee
- Student and parent access to all online content
- Teaching Assistants (TAs) are available both in real-time and offline to answer content-related questions.