ATTENTION ALABAMA TWO-YEAR COLLEGE STUDENTS

If you plan to transfer to UAB from an Alabama Community College to study mechanical engineering, this page lists required and recommended courses in Areas I through V, including courses specifically required by UAB in Area V.

This is the transfer page that is referred to in the articulation guide. The AGSC articulation guide and this page comprise the articulation agreement for a major in mechanical engineering at the University of Alabama at Birmingham.

Please print this page, fill in your name and today's date, and attach it to the Engineering-mechanical articulation guide.

Name (print): ___________________________________

Signature: _____________________________________

Date: __________________

Core Curriculum Requirements
Students transferring from Alabama public two-year and four-year colleges and universities should consult the AGSC site for complete details regarding Areas I-IV for all majors, including the list of approved courses for each institution. Specific requirements for students planning to transfer to UAB and major in mechanical engineering are included below.

AREA I - Written Composition (6 semester hours)
AGSC: "Requirements include at least 6 semester hours in written composition."

AREA II - Humanities and Fine Arts (9 semester hours)
AGSC: Check AGSC web page for specific wording of Area II requirements. " . . .
Requirements include at least 9 semester hours in humanities with a minimum of 3 semester hours in literature, 3 semester hours in the arts, and the remaining semester hours from the humanities and/or fine arts. . . "

**UAB:** Students preparing to complete the B.S. degree in engineering must demonstrate in-depth study in a particular discipline of the Humanities and Fine Arts (Core Area II) or History, Social, and Behavioral Sciences (Core Area IV). This is accomplished by completing six semester hours in a single discipline. Taken from a course sequence, in either Core Area II or Core Area IV.

**AREA III - Natural Sciences and Mathematics (11 semester hours)**

**AGSC:** Check specific wording of Area III section of the AGSC web page. “. . . Requirements include at least 12 semester hours with at least 3 semester hours in mathematics at the analytic geometry and calculus level or higher, and at least 8 semester hours in calculus-based physics which must include laboratory experiences.”

**UAB:** Students planning to complete the B.S. degree in engineering can transfer mathematics courses only at the level of analytic geometry and calculus or higher.

**UAB:** Students planning to complete the bachelor's in Mechanical Engineering at UAB must take:

- **Alabama College System Course**
  - MTH 125 Calculus I (3 sem. hrs.)
  - PHY 213 General Physics with Calculus I (4 sem. hrs.)
  - PHY 214 General Physics with Calculus II (4 sem. hrs.)

**AREA IV - History, Social, and Behavioral Sciences (9 semester hours)**

**AGSC:** Check specific wording of Area IV section of the AGSC web page. “. . . Requirements include 9 semester hours with at least a 3 semester hour course in history and at least 3 semester hours from among other disciplines in the social and behavioral sciences. . . ”

**UAB:** Students preparing to complete the B.S. degree in engineering must demonstrate in-depth study in a particular discipline of the Humanities and Fine Arts (Core Area II) or History, Social, and Behavioral Sciences (Core Area IV). This is accomplished by completing six semester hours in a single discipline, taken from a course sequence, in either Core Area II or Core Area IV.

**AREA V - Pre-Professional, Major, and Elective Courses for Mechanical Engineering at UAB (28 semester hours)**

**Contact**
- Name: Dr. David L. Littlefield, Ph.D.
REQUIRED COURSES:

PART 1: Requirements ratified by the AGSC for mechanical engineering:

<table>
<thead>
<tr>
<th>Alabama College System Courses</th>
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<tbody>
<tr>
<td>MTH 126 Calculus II (4 sem. hrs.)</td>
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<tr>
<td>MTH 227 Calculus III (4 sem. hrs.)</td>
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<tr>
<td>MTH 237 Linear Algebra (3 sem. hrs.)</td>
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<tr>
<td>MTH 238 Applied Differential Equations I (3 sem. hrs.)</td>
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<tr>
<td>CHM 111 College Chemistry I (4 sem. hrs.)</td>
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<tr>
<td>CHM 112 College Chemistry II (4 sem. hrs.)</td>
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Select one of the following courses:

* CIS 231 FORTRAN Programming (3 sem. hrs.)
* CIS 251 "C" Programming (3 sem. hrs.)

TOTAL (Part 1) = 25 semester hours

* Students are strongly encouraged to take a course with MATLAB content. MATLAB is taught in EGR 150, the engineering computer methods class at UAB. However, UAB will accept the programming courses listed above for degree fulfillment.

PART 2: Course to fulfill Area V for major in mechanical engineering at UAB:

<table>
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<tr>
<th>Alabama College System Course</th>
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<tbody>
<tr>
<td>MTH 270 Probability and Statistics Concepts (3 sem. hrs.)</td>
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TOTAL (PART 2) = 3 semester hours

COMPLETE REQUIREMENTS FOR MECHANICAL ENGINEERING MAJORS AT UAB:

General Admission Requirements:

Students declaring their intention to major in mechanical engineering may be classified as pre-engineering majors until they fulfill specific academic requirements. For a complete description of admission and other school wide requirements see the School of Engineering section of the Undergraduate Catalog [http://catalog.uab.edu/undergraduate/](http://catalog.uab.edu/undergraduate/).