### BIO CHECKLIST | Effective Spring 2016

#### GENERAL EDUCATION

<table>
<thead>
<tr>
<th>AREA A: Essential Skills</th>
<th>HRS</th>
<th>GR</th>
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</thead>
<tbody>
<tr>
<td><strong>ENGL 1101 Composition I</strong> (3 hrs)</td>
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<tr>
<td><strong>ENGL 1102 Composition II</strong> (3 hrs)</td>
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<tr>
<td><strong>MATH 1112 College Trig or MATH 1113 PreCalculus</strong> (3 hrs)</td>
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<tr>
<td>or <strong>MATH 1190a Calculus I</strong> (4 hrs)</td>
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#### AREA B: Institutional Options

**Economic Issues:**
- ECON 1000 Contemporary Economic Issues*

Select 1 three hour course:
- AADS, AMST, ASIA, GWST, LALS, PAX, or RELS 1102; COM 1100; *FL 1002 (FL denotes any Foreign Language); PHIL 2200; or POLS 2401

#### AREA C: Humanities/Fine Arts

<table>
<thead>
<tr>
<th>HRS</th>
<th>GR</th>
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<tbody>
<tr>
<td><strong>ENGL 2110, 2111, 2120, 2121, 2122, 2130, 2131, 2132, or 2300</strong></td>
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Select 1 three hour course:
- ART 1107 or MUSI 1107 or TPS 1107 or DANC 1107

#### AREA D: Science, Math, and Technology

<table>
<thead>
<tr>
<th>HRS</th>
<th>GR</th>
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<tbody>
<tr>
<td><strong>MATH 1190a Calculus I</strong> (4 hrs)</td>
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<tr>
<td>or <strong>MATH 2202 Calculus II</strong> (4 hrs)</td>
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<tr>
<td><strong>CHEM 1211/L General Chemistry I</strong> (3/1 hours)</td>
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<tr>
<td><strong>CHEM 1212/L General Chemistry II</strong> (3/1 hours)</td>
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#### AREA E: Social Sciences

<table>
<thead>
<tr>
<th>HRS</th>
<th>GR</th>
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<tbody>
<tr>
<td><strong>POLS 1101 American Government</strong> (3 hrs)</td>
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<tr>
<td><strong>HIST 1100, 1111, or 1112</strong> (3 hours)</td>
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</tr>
<tr>
<td><strong>HIST 2111 U.S. History to 1877 or HIST 2112 U.S. History since 1877</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Choose one: ANTH 1102, CRJU 1101, GEOG 1101, PSYC 1101, SOCI 1101, OR ECON 2100</strong></td>
<td></td>
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<tr>
<td><strong>WELL 1000 (formally HPS 1000 Fitness for Living)</strong>(3 hrs)</td>
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#### FREE ELECTIVES (12 hrs)

<table>
<thead>
<tr>
<th>HRS</th>
<th>GR</th>
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<tbody>
<tr>
<td><strong>KSU First Year Seminar</strong> (3 hrs) or Learning Community</td>
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*Area B1 and E4 in General Education have made some changes. Please consult DegreeWorks and your advisor if you have questions. **This track is designed for students with a strong interest in pursuing professional work or a graduate education in microbiology. After completing the track, students will be qualified to sit for certification as Registered Microbiology Specialists in Food Safety and Quality Assurance, Pharmaceutical and Medical Devices, or Specialists in Microbiology.

#### AREA F: LOWER DIVISION REQUIREMENTS

<table>
<thead>
<tr>
<th>HRS</th>
<th>GR</th>
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<tbody>
<tr>
<td><strong>BIOL 1107/L Biological Principles I</strong> (3/1 hours)</td>
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<tr>
<td><strong>BIOL 1108/L Biological Principles II</strong> (3/1 hours)</td>
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<tr>
<td><strong>PHYS 1111/L or 2211/L (4 hours)</strong></td>
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</tr>
<tr>
<td><strong>PHYS 1112/L or 2212/L (4 hours)</strong></td>
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#### UPPER DIVISION MAJOR REQUIREMENTS

**REQUIRED COURSES**
- BIOL 3300/L Genetics (3/1 hours)
- BIOL 3370/L Ecology (3/1 hours)
- BIOL 3410 Cell Biology (3/3 hours)
- BIOL 4399 Seminar (Can only be used once towards degree)
- CHEM 3361/L Modern Organic Chemistry I (3/1 hours)
- CHEM 3362/L Modern Organic Chemistry II (3/1 hours)
- STAT 3125 Biostatistics (3 hours)

**TRACK REQUIREMENTS (25 hrs)**

**MICROBIOLOGY REQUIRED COURSES (8 Hours)**
- BIOL 3340/L Microbiology (3/1 hrs)
- BIOL 3341K Advanced Microbiology (4 hours)

**MICROBIOLOGY ELECTIVE COURSES (17 Hours)**
- Options Listed on Back

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**A maximum of 6 hours of BIOL 3110, 4400, 3398, 4402, and/or BIOL 4110 can be used in this track. Two elective classes must be laboratory courses. A student may include up to four hours of any 3000 or 4000 level Physics, Chemistry, Math, GIS, or SCI 3360, HIST 3377, POLS 4456, PSYC 4410, or BIOL 3398.**
## Kennesaw State University | Depts. of EEOB & MCB | Microbiology Track

### GEN ED & LOWER DIVISION REQUIREMENTS-PREREQs

- **MATH 1190** and MATH 2202  
  ([ MATH 1112, 1113, or Math Placement Test ]
- **CHEM 1211/1211L**  
  ([ pre-req or co-req: MATH 1112, MATH 1113, or MATH 1190 ]
- **CHEM 1212/1212L**  
  ([ CHEM 1211/1211L ]
- **Biol 1107/1107L**  
  ([ pre-req or co-req CHEM 1211/1211L ]
- **Biol 1108/1108L**  
  ([ MATH 1107/1107L and CHEM 1211/L ]
- **Phys 1111/L or 2211/L**  
  ([ Phys 1111=[ MATH 1112 or 1113 ] Phys 2211=[ MATH 1190 ]
- **Phys 1112/L or 2212/L**  

### UPPER DIVISION MAJOR REQUIREMENTS-PREREQs

- **Chem 3361/3361L**  
  ([ CHEM 1212/1212L ]
- **Chem 3362/3362L**  
  ([ CHEM 3361/3361L ]
- **Stat 3125**  
  ([ BIOL 1107 or CHEM 1212 or instructor permission]
- **Biol 3300/L Genetics**  
  ([ CHEM 1211/1211L and BIOL 1107/L]
- **Biol 3370/L Ecology**  
  ([ BIOL 1108/L, STAT 3125, or instructor permission]
- **Biol 3410 Cell Biology**  
  ([ BIOL 3300/L and 1108/L]
- **Biol 4390 Seminar**  
  ([ BIOL 3410]

### BIOLOGY ELECTIVE OPTIONS (All options are not listed- these are just some)

- **Biol 3340/L Microbiology (3/1 hrs)**  
  ([ BIOL 1107/L and 1108/L ]
- **Biol 3341K Advanced Microbiology (4 hours)**  
  ([ BIOL 3340 ]

### NOTES

> New students are required to take the online Math Advisement Placement Test (MAPT) available at http://placement.kennesaw.edu. If MATH 1190 is first MATH class at KSU, it will be used in Area A only and the Area D MATH must be MATH 2202. Otherwise, MATH 1190 must be the Area D MATH.

See [catalog.kennesaw.edu](http://catalog.kennesaw.edu) for graduation requirements, general education details, additional pre-requisite options, course descriptions, and degree comments. If you have questions about the Biology major, please contact your advisor. Also note that students are initially advised in the College of Science & Mathematics Advising Center, located in Science 204.

"DegreeWorks" on OwlExpress is a wonderful tool to track where you are in your degree. Please check it constantly. However, it isn't always accurate for every situation, so please see your advisor regularly.

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