RANDOLPH-MACON BIOLOGY MAJOR

1. **Required courses: BIOL121 and 122 (in either order), BIOL 200, and BIOL 205**
2. **Upper-level courses: six additional biology courses at the 180 level or above. At least one course must be taken from each of three groups: Cell/Molecular, Organismal, and Ecology. At least four of the six courses must be 4 credit hours and the remainder at least 3 hr. BIOL 450, 487, 493, and 496 can be counted toward the 6 courses (3 hours each). BIOL 494, 488 and 498 can also be counted as one 4 hr course.**
3. **Capstone: BIOL 499 (Biology Capstone) must be taken in the fall or spring of the senior year.**

Cell/Molecular Group

201 Cell Biology (4 hr)

311 Microbiology (4 hr)

351 Advanced Cell Biology (4 hr)

352 Research Methods in Cell (4 hr)

353 Molecular Genetics (3 hr)

354 Human Genetics (3 hr)

407-408 Biochemistry I & II (4 hr ea.)

432 Histology (4 hr)

442 Immunology (4 hr)

381 Special Topics (check the course syllabus to see if a particular section is approved for this category)

Organismal Group

181 Algae, Fungi, & Allies (4 hr)

182 Biology of Plants (4 hr)

202 Plant Taxonomy (4 hr)

203 Non-Vascular Plants (4 hr)

230 Ichthyology (4 hr)

248 Entomology (4 hr)

251-252 Human Anat. & Phys. I & II (4 hr each)

309 Animal Behavior (4 hr)

381 Special Topics (check the course syllabus to see if a particular section is approved for this category)

Ecology Group

235 Marine Biology (4 hr)

260 Vertebrate Field Biology (4 hr)

301 Plant Ecology (4 hr)

310 Freshwater Ecology (4 hr)

315 Infectious Disease & Public Health (4 hr)

325 Ecology (4 hr)

333 The Cradle of Man (4 hr)

480 Evolutionary Biology (4 hr)

381 Special Topics (check the course syllabus to see if a particular section is approved for this category)

Electives

(can be counted towards the 6 upper-level course requirement after group requirements are fulfilled)

Biostatistics BIOL 350 (4 hr)

Internship BIOL 450 (3 hr)

Research BIOL 487, 493, 496 (3hr)

488, 494, 498 (counts as 4hr)

FYE Course (3 or 4 hr; if approved)

Cognate Courses

At least one semester of chemistry at or above CHEM 175 is required of all majors. (Depending on career goals, general physics, organic chemistry and calculus may be necessary.)

Research Courses

271-272 Indep. Research (1 hr)

493-494 Semester-long research (3-6 hr)

487-488 or 496-498 Yearlong research (6 hr)