# Master of Arts in Science Education (9-12)
## Program Checklist

Check one of following programs of study:

<table>
<thead>
<tr>
<th>Comprehensive Science Education</th>
<th>Biology Education</th>
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### Required Professional Studies Core (15 hours)
- EDN 5440 Survey of Educational Research (3) (should be taken before SCE5700)
- EDN 5660 Advanced Educational Research (3) (should be taken before SCE 5700)
- SCE 5600 Foundations of Science Education (3)
- SCE 5700 Improving 9-12 Science Classroom Instruction (3) (capstone course taken semester before grad.)
- SCE 5800 Contemporary Issues in Science Education (3)

### Academic Specialization: Choose 12 credits in 1 area of concentration from the following courses. (12 hours)

**Note: Biology Education students may choose 15-18 hours in Biology.**

#### Biology (required for undergraduate Biology Education majors)
- BIO 5100 Marine Biology (3) (course fee – travel to Bermuda)
- BIO 5120 Topics in Ecology and Environmental Biology (3)
- BIO 5150 Advanced Microbiology (3)
- BIO 5200 Current Trends in Molecular and Cell Biology (3)
- BIO 5250 Evolutionary Botany (3)
- BIO 5350 Evolutionary Zoology (3)
- BIOS 5xxx Special Topics in Biology (1-4 hours) (Costa Rica and Ossabaw Island courses have a travel fee)

#### Chemistry
- CHM 5200 Current Trends in Chemistry (3)
- CHM 5480 Historical Perspectives on Chemistry (3)
- CHM 5500 Spectroscopic Methods of Structure Determination (3)
- CHM 5600 Instruments for Chemical Analysis (3)
- CHMS 5xxx Special Topics in Chemistry (3)

#### Earth Science
- GLY 5010 Essentials of Earth Science (3)
- GLY 5020 Essentials of Earth History (3)
- GLY 5040 The Physiography and Ecology of the Atlantic Coastal Plain (3)
- GLY 5410 Meteorology and Climatology (3)
- GLYS 5xxx Special Topics in Geology/GGYS 5xxx Special Topics in Geography (1-4 hours)

#### Physics
- PHS 5000 The Art & Science of Chemistry & Physics (3)
- PHY 5200 Current Trends in Physics (3)
- PHY 5480 Historical Perspectives of Physics (3)
- PHY 5500 Classical Mechanics (3)
- PHY 5600 Modern Physics (3)
- PHYS 5xxx Special Topics in Physics (3)

### Capstone Experience
Each candidate must successfully complete a Comprehensive Portfolio as the final product of the program and successfully complete a Comprehensive Exit Oral Interview.

**TOTAL** 36-39

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