

TO: Dean Jackman
FROM: Dr. Jeanne Okrasinski, Acting Chair, EC/ELE/MLE
DATE: April 10, 2017
RE: Executive Action – BIO sciences coursework for Middle Grades Science endorsement

Requested Change:

Replace BIO 1100, BIO 1200G and BIO 1300G with BIO 1500 and BIO 1550G in the Middle Grades Science endorsement

Rationale for Change:

BIO 1100, 1200G and 1300G have been discontinued and should be replaced by BIO 1500 and BIO 1550G. The two-part series reduces the core requirements, and allows for efficient articulation of coursework from community colleges and other universities (which typically have a 2 semester introductory biology course sequence).

Effective Date: Fall 2017

Original

Middle Grades Endorsements

All students will complete the middle grades language arts/literacy endorsement as a part of the required program. A minimum of one additional subject area endorsement must be selected from the following areas:

Middle Grades General Sciences

- BIO 1100 - General Biology. Credits: 4
- (replaces BIO 1001G in program requirements if completing this endorsement)

AND

- CHM 1040G - The World of Chemistry. Credits: 4
- or
- CHM 1310G - General Chemistry I. Credits: 3
- and

- [CHM 1315G - General Chemistry Laboratory I. Credits: 1](#)
- [or](#)
- [CHM 3025G - The Chemistry in Your Life. Credits: 3](#)

AND

- [PHY 1051G - Physics of the Modern World. Credits: 3](#)
- [or](#)
- [PHY 1052G - Adventures in Physics. Credits: 3](#)
- [and](#)
- [PHY 1053G - Adventures in Physics Laboratory. Credits: 1](#)
- [or](#)
- [PHY 1151G - Principles of Physics I. Credits: 3](#)
- [and](#)
- [PHY 1152G - Principles of Physics I Laboratory. Credits: 1](#)
- [or](#)
- [PHY 3050G - Excursions in Physics. Credits: 3](#)

AND

- [GEO 1400G - Weather and Climate. Credits: 4](#)
- [or](#)
- [GEO 3200 - Human Impacts on the Environment. Credits: 3](#)
- [or](#)
- [GEO 1300G - Introduction to Earth Sciences. Credits: 4](#)
- [or](#)
- [PHY 1055G - Principles of Astronomy. Credits: 3](#)
- [and](#)
- [PHY 1056G - Principles of Astronomy Laboratory. Credits: 1](#)

AND

- [BIO 1200G - General Botany. Credits: 4](#)
- [or](#)
- [BIO 1300G - Animal Diversity. Credits: 4](#)

AND

- [ELE 3290 - Science in the Elementary and Middle School. Credits: 3](#)

AND

- [AET 2300G - Science and Technology: A Promise or a Threat? Credits: 3](#)
- [\(cross listed with GEO 2300G\)](#)

Proposed changes

Middle Grades Endorsements

All students will complete the middle grades language arts/literacy endorsement as a part of the required program. A minimum of one additional subject area endorsement must be selected from the following areas:

Middle Grades General Sciences

- ~~[BIO 1100 - General Biology. Credits: 4](#)~~
- [BIO 1500 – General Biology I. Credits: 4](#)
- [\(replaces BIO 1001G in program requirements if completing this endorsement\)](#)

AND

- [CHM 1040G - The World of Chemistry. Credits: 4](#)
- [or](#)
- [CHM 1310G - General Chemistry I. Credits: 3](#)
- [and](#)
- [CHM 1315G - General Chemistry Laboratory I. Credits: 1](#)

- or
- CHM 3025G - The Chemistry in Your Life. Credits: 3

AND

- PHY 1051G - Physics of the Modern World. Credits: 3
- or
- PHY 1052G - Adventures in Physics. Credits: 3
- and
- PHY 1053G - Adventures in Physics Laboratory. Credits: 1
- or
- PHY 1151G - Principles of Physics I. Credits: 3
- and
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- or
- PHY 3050G - Excursions in Physics. Credits: 3

AND

- GEO 1400G - Weather and Climate. Credits: 4
- or
- GEO 3200 - Human Impacts on the Environment. Credits: 3
- or
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
- or
- PHY 1055G - Principles of Astronomy. Credits: 3
- and
- PHY 1056G - Principles of Astronomy Laboratory. Credits: 1

AND

- BIO 1200G - General Botany. Credits: 4

- ~~or~~
- ~~BIO 1300G – Animal Diversity. Credits: 4~~
- **BIO 1550G – General Biology II. Credits: 4**

AND

- ELE 3290 - Science in the Elementary and Middle School. Credits: 3

AND

- AET 2300G - Science and Technology: A Promise or a Threat? Credits: 3
- (cross listed with GEO 2300G)