Welcome to the new Sail system. We appreciate any feedback, please let us know what you think

Send Feedback ()

Syllabus of Record

Purpose

The syllabus of record (SOR) serves five audiences:

1. Faculty can use the SOR as a blueprint for designing course syllabi. Faculty are free to add to the content in the SOR, but the required activities, objectives, and methods of evaluation in the SOR must be maintained.
2. Students can use the SOR to determine, before they register, the skills they can expect to engage in and what they can expect to have learned upon successful completion of a course.
3. The SOR provides a standard format that other schools can use to determine transfer credit.
4. Faculty governance (e.g., CCC, UCC) use the SOR when evaluating course-change and new course proposals.
5. Accreditation bodies may use the syllabus of record to view the content taught in every section of a course.

The syllabus of record (SOR) is a blueprint for building a course. It provides details on the minimum structure and content for the course so that units can ensure knowledge is structured throughout the curriculum. It is not necessarily meant to articulate every aspect of each week of a course. Therefore, when constructing an SOR, careful attention must be paid to what it contains. If a unit wishes to propose a course in which content is quite rigid and fixed, then the various sections of the SOR would reflect that. On the other hand if a unit wishes to propose a course with content to be selected from a range of specified possibilities and/or a course with little fixed content with the bulk of the content being determined by the specific instructor, then the SOR would indicate that.

The SOR **guidelines (http://gvsu.edu/cms3/assets/66FDB529-EC51-DDBF-096EF6EFB7879DAA/UCC/ucc2011_12/00_sorguidelines2011.pdf)** can really help with creating a successful SOR.

Course Data

Course Code
SCI 450

Title
Earth and Life Science in Secondary Education

Credits
3

Prerequisites
Junior Standing; BIO 120 and BIO 121 or GEO 111 and GEO 112

Description
Designed to introduce students to evidence based, earth and life science teaching pedagogy, science education standards, and science safety practices. Students apply these ideas to lesson plan development and facilitation for earth and life science content.

Syllabus of Record

Objectives
After successful completion of the course the students will be able to

1) **Complex Overt Response/Demonstrate:**
Demonstrate writing skills across their science discipline

2) **Application/Demonstrate:**
Demonstrate proficiency at addressing the NGSS and Michigan High School Content Expectations

3) **Comprehension/Locate:**
Locate teaching materials and resources,

4) **Application/Demonstrate:**
Demonstrate and highlight connections between Climate Change, Earth Science and Life Science

5) **Application/Demonstrate:**
Demonstrate an increase in content knowledge specific to Life and Earth Science,

6) **Origination/Design:**
Design lessons that highlight teaching science by inquiry,

7) **Origination/Design:**
Design and complete a research project related to the integration of Life and Earth Science, and Life and Earth Science education,

8) **Application/Demonstrate:**

Demonstrate a professional work ethic,

9) **Application/Prepare:**
Prepare for the MTTC in Life science, Earth science, and Integrated science,

Topics

Modeling Integration of Life and Earth science with Inquiry-based Teaching, including (8-10 weeks)

Geologic time, fossil evidence of evolution, taxonomy, and phylogenetic trees

DNA, mutation rates, and testing phylogenetic trees

Evolution, Photosynthesis, and Changes in the Early Atmosphere

Plate tectonics, geographic isolation, speciation and biodiversity

Climate zones, biomes, El Niño Southern Oscillation and species abundance

Sedimentary rocks, Energy production, and Carbon Sources

Population Growth, Non-energy resources, and Environmental Impacts

Evidence for Anthropogenic Climate Change

Impact of Climate Change on Species Range

Projections and Mitigation

Introduction of National and state science standards.

Lesson plan development and professional presentation skills.

Methods of Evaluation

EVALUATION of COURSE WORK

- **Observation of Local Teacher and reflection paper**
- **Lesson Plan: draft, peer review, revision, classroom presentation**
- **Field trip participation and reflection paper**
- **participation in and evaluation of lessons that exemplify research-supported best pedagogy**
- **Three one-hour exams**

Sample Source(s) of Information

" Climate Change 2013 The Physical Science Basis

http://www.ipcc.ch/report/ar5/wg1/ (http://www.ipcc.ch/report/ar5/wg1/)

" InTeGrate Developed Modules and Courses
http://serc.carleton.edu/integrate/teaching_materials/modules_courses.html
(http://serc.carleton.edu/integrate/teaching_materials/modules_courses.html)

" Abrupt Climate Change: Anticipating the Impacts

http://www.nap.edu/catalog/18373/abrupt-impacts-of-climate-change-anticipating-surprises

" The Sixth Extinction: An Unnatural History by E. Kobert

" Your Inner Fish: A Journey into the 3.5 Billion-Year History of the Human Body by Neil Shubin

" *Beak of the Finch* by J. Weiner

" Next Generation Science Standards (http://www.nextgenscience.org/)
www.nextgenscience.org

" Michigan State Curriculum Framework

http://www.michigan.gov/documents/MichiganCurriculumFramework_14058_7.pdf
(http://www.michigan.gov/documents/MichiganCurriculumFramework_14058_7.pdf)

" Michigan Test for Teacher Certification

http://www.mttc.nesinc.com/ (http://www.mttc.nesinc.com/)

The SOR **guidelines (http://gvsu.edu/cms3/assets/66FDB529-EC51-DDBF-096EF6EFB7879DAA/UCC/ucc2011_12/00_sorguidelines2011.pdf)** can really help with creating a successful SOR.