

Course Change Request

New Course Proposal

Date Submitted: 03/26/20 9:23 am

Viewing: **GEOL 104 : Historical Geology Laboratory**

Last edit: 03/26/20 9:23 am

Changes proposed by: muhen

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2020

Subject Code: GEOL - Geology

Course Number: 104

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Historical Geology Laboratory

Banner Title: Historical Geology Laboratory

Will section titles vary by semester? No

Credits: 1

Schedule Type: Laboratory

Hours of Lab or Studio per week: 3

In Workflow

1. **AOES Chair**
2. **SC Curriculum Committee**
3. SC Associate Dean
4. Assoc Provost- Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 03/25/20 11:22 am
Jim Kinter (ikinter):
Rollback to Initiator
2. 04/15/20 4:57 pm
Jim Kinter (ikinter):
Approved for AOES Chair

Repeatable: May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 3

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):
 GEOL 102 or GEOL 134

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

- Field(s) of Study:**
- Class(es):**
- Level(s):**
- Degree(s):**
- School(s):**

Catalog Description:

Practical investigation of earth processes in historical context. Topics include sedimentary rocks and principles, deformation and metamorphism, mountain building and plate tectonics, geologic time, fossils, and historical development of continents. Notes: May include field trips.

Justification:

This is the lab portion of the current GEOL 102 4 credit course. This is being separated so that students only needed 7 credits of Natural Science in the Mason Core will be able to take the lecture portion.

Does this course cover material which crosses into another department?

No

Learning Outcomes:

Attach Syllabus

[new GEOL 104 syllabus.pdf](#)

Additional Attachments

Staffing:

Anyone in the department, including adjunct instructors could teach this course.

Relationship to Existing Programs:

All geology undergraduate degrees (and others) that currently require GEOL 102 will be changed to state that they require any 100 level GEOL lecture course (without lab) plus GEOL 104 as a requirement for the degree.

Relationship to Existing Courses:

This is the former lab portion of the current GEOL 102. GEOL 102 will now be just lecture and 3 credits instead of 4 including lab.

Additional Comments:

Reviewer Comments

Jim Kinter (ikinter) (03/25/20 11:22 am): Rollback: Please make changes per curriculum committee

Key: 16814

HISTORICAL GEOLOGY LABORATORY
GEOL 104
Syllabus

Instructor:

E-mail:

Office:

Office Hours:

Lab workbook

Each student will need the Historical Geology Workbook. The workbook may be purchased as a hard copy or an electronic copy. The hard copy can be found at the Mason bookstore or through the publisher. The e-book version can be found at:

<https://he.kendallhunt.com/product/historical-geology-workbook-ebook>

Additional material developed specifically for our lab section will be available on Blackboard

General information and lab policies

This lab contributes to fulfill the requirements for the GMU Core courses in the natural science, specifically, learning outcome 5: students will participate in scientific inquiry and communicate the elements of the process, including: a) making careful and systematic observations, b) developing and testing a hypothesis, c) analyzing evidence, and d) Interpreting results.

The laboratory course consists of 13 lab sessions (see lab calendar and topics). Each Lab session is scheduled for the duration of 2 hours 45 minutes.

Students should bring to lab your own writing material and their workbook. Materials and/or handouts used for specific lab assignments will be provided. At the end of each lab, students are responsible for returning the lab material in good order.

Students are encouraged to participate actively asking questions and answering when prompted and to collaborate at the solution of the problems presented during the session. Students in GEOL 104 abide by the GMU Honor Code.

Students are requested to become familiar with the safety procedures and devices in the lab. These procedures are pointed out by the instructor during the first lab meeting.

Lab etiquette: the lab is a safe, respectful learning place. Please arrive on time, the lab starts as scheduled. You do not need to wear protective gear, but rocks are heavy, be careful handling large and/or delicate samples. Personal bags, backpacks and jackets need to be off the floor and not to obstruct the working spaces. At the end of each lab, take away with you everything you brought in. Discarded material must be put into the trash.

Students take responsibility for their actions during GEOL 104 lab time. Misuse of lab equipment/materials as well as any disruptive behavior in class will not be tolerated.

Assessment of student work:

- 10 lab exercises: each worth 4 points = 40 points. Each lab exercise is scored on completion, correctness and participation. It is the responsibility of each student to keep the exercises until the end of the course.
- Two lab exams Exam 1 = 20 points, Exam 2 = 25 points. The exams are designed to test your requisite knowledge of the material. Exams will be based on the lab material, missing a lab can be detrimental to your overall lab grade as you will not be taught the information that will be on the exams.
- Museum project: individual assignment, worth 15 points

GEOL 104 LABORATORY calendar*

Session Topic

1	Sedimentary rocks, sedimentary environments and structures
2	Sediments under the microscope
3	Stratigraphy rules, unconformities and correlations – Relative dating
4	Radiometric dating and the geologic time scale
5	Lithostratigraphic Correlation
6	Exam 1
7	Reef builders: Sponges, Corals, Bryozoans and Brachiopods
8	Mollusks, Arthropods and Echinoderms
9	Geology of Virginia and Fairfax
10	Dinosaur Biomechanics
11	Visit to the Museum of Natural History – self guided trip
12	Evolution in the fossil record – Human evolution
13	Exam 2

* instructor reserves the right to change lecture topic to fit class needs and learning objectives. Changes of schedule can happen in the event of extenuating circumstances such as, but not limited to, extreme weather.