



## Course Syllabus

GLY 2100 - 540

## History of the Earth and Life Spring Term 2023-2024 (0630)

### Welcome

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Welcome to the GLY 2100 On-line syllabus. This page is intended to serve as a reference for all administrative issues regarding this course and is accessible from the Table of Contents navigation panel on the left of the MyCourses screen. Please refer to this and the other administrative pages (faq's, calendar, etc.) whenever an administrative question arises and before contacting the instructor directly

This course is intended to increase your knowledge of the Earth-system and to inspire you to continue your science education beyond the confines of the (electronic) classroom. The course material is not "dumbed-down" and you will be expected to cover a lot of material in the course. The vast majority of students in this course rise to the challenge and finish the course with a deeper and broader understanding of the Earth-system in a way that they can apply to their everyday lives - whether it be by looking at the rocks under their feet with a new found understanding, digging for fossils at every road cut they come across, or understanding the nasty political debates about climate change or evolution to which we are exposed daily.

### Instructor Contact Information

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Ethan Goddard

#### Email

Goddard.Ethan@spcollege.edu

**Phone:** The MyCourses email tool remains the most efficient and reliable means of communicating with the instructor for this course. Please, unless absolutely unable to do so, use the MyCourses email tool for all course related communication. If you are unable to use the MyCourses email tool you can leave a message for me in the SPC Voicemail System at 727-344-8004. I will use the MyCourses email tool to respond to all voicemails.

**Office and Online Chat Hours:**

I generally respond to MyCourses emails within 24 hours (during the academic week) and 48 hours on holidays and weekends.

**Office Location:**

Because I teach entirely through eCampus I do not have office hours. During the course term students should contact me via the MyCourses email tool.

**Instructor Web Page:**

<https://web.spcollege.edu/instructors/id/goddard.ethan>

**Zoom Link for Class:**

n/a

## **Departmental Contact Information**

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Dr. Natavia Middleton

**Title:** Department Chair

**Email:** middleton.natavia@spcollege.edu

**Phone Number:** 727-398-8288

**Appointment Information:** Call or Email contacts above to schedule an appointment

Dr Grace Moore

**Title:** Academic Chair, Assistant Dean of Natural Sciences, North County

**Email:** moore.grace@spcollege.edu

**Phone Number:** 727-341-4374

**Appointment Information:** Call or Email contacts above to schedule an appointment

## **Course Information**

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**Prerequisite(s):** Prerequisites: (ENC0020, ENC0025, ENC0990, ENC0056 or ENC0055) and (REA0017, REA0002, REA0990 or REA0056); or EAP1695; and (MAT0028, MAT0024, MAT0990, MAT0056 or MAT0055); or appropriate scores on the college placement test.

**Credit Hours:** 3

**Modality:** Online

**Course Description:** This course is a study of the geologic history of the earth, including concepts of the origin of the continents and the ocean basins, plate tectonics, the major physical events as recorded in the rocks of the continents and the evolutionary changes and processes in animals and plants through time.

## **Course Objectives**

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1. The student will discuss scientific theory through Earth history by:
  - a. illustrating the use of the scientific method in the geological sciences.
  - b. describing the contributions of early and modern scientists to Earth history.
  
2. The student will classify rocks and minerals by:
  - a. categorizing examples of Sedimentary, Metamorphic, and Igneous Rocks as well as illustration of the rock cycle.
  - b. comparing the minerals of Moh's Hardness Scale and implementing the physical identification tools of minerals.
  
3. The student will explain the Theory of Plate Tectonics by:
  - a. comparing the types of plate boundaries and identifying modern examples of each.
  - b. describing evidence of plate tectonics.
  - c. identifying the evidence for continental drift.
  
4. The student will describe the Geologic Time Scale and preservation in Earth history by:
  - a. calculating ages of fossils or rocks based on numerical or radiometric dating using the "half-life" of parent to daughter isotopes.
  - b. the application of relative dates to stratigraphic sequences as well as through the use of index fossils.

- c. explaining the types of fossilization methods as well as which types of sedimentary rocks and sedimentary environments are best for preservation.
5. The student will explain of the Theory of Evolution by:
- a. discussing the basic concept of evolution and listing various lines of evolution through geologic time.
  - b. using cladistics to show evolution in specific organisms.
6. The student will interpret Precambrian Earth history by:
- a. describing the formation of the Earth, early atmospheric composition, and early oceanic formation.
  - b. explaining the theories of the origin of early life forms.
  - c. comparing supercontinents of the Proterozoic Eon.
7. Students will describe the Earth during the Paleozoic Era by:
- a. discussing the paleogeography of the Appalachian Mobile Belt and Taconic Orogeny.
  - b. discussing the Cambrian explosion of life through the use of the Burgess Shale fauna.
  - c. identifying the evolution of marine fauna including fish and trilobites.
  - d. classifying land fauna and flora including reptiles, amphibians, and the rise of land plants.
  - e. identifying the cause and results End Permian Extinction (Great Dying).
8. The student will describe the Earth during the Mesozoic Era by:
- a. explaining the break up of Pangaea.
  - b. classifying fauna including dinosaurs and mammals as well as the major plant fauna.
  - c. discussing and describing the cause and results of the End Triassic Extinction (K-T Boundary).

9. The student will interpret Earth history in the Cenozoic Era by:
- a. describing the rise of Cenozoic mountain belts.
  - b. explaining possible causes of the last Ice Age plus describing land forms and evidence of glaciation.
  - c. explaining evolution of mammals and plants in the Cenozoic Era.
  - d. describing the geology of the Florida peninsula through the Cenozoic as well as tracking the evolution and migration patterns of various extinct organisms that once roamed Florida.

## **Required Textbook and Other Resources**

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**Students DO NOT need to purchase a text book or any other course materials. This course makes use of freely available Open Educational Resources (OERs). These are free, there is no book. Students can accomplish all course work using the resources provided in the course.**

## **Performance Assessment and Grading**

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Final and midterm exams - 40%

Discussions - 20%

Module quizzes - 10%

Concept sketches - 15%

Activities - 15%

## **Grading Scale**

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A: 90 - 100

B: 80 - 89

C: 70 - 79  
D: 60 - 69  
F: < 60

## **Respondus LockDown Browser Proctored Testing Information**

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### **Proctored Testing Requirement**

This course requires one or more of your quizzes/exams in MyCourses to be virtually proctored. Proctoring will be conducted using an online proctoring service called LockDown Browser & Respondus Monitor. You DO NOT need to create an account or schedule an appointment. Your quizzes will be accessible on the dates your instructor has set for you to take them. To take a LockDown Browser & Respondus Monitor quiz, you will need the following: a computer, a working webcam/microphone, your ID, and a stable internet connection. Check out [LockDown Browser & Respondus Monitor Support for Test-Takers](#) to learn more or for technical assistance.

### **Room Scan & ID Information**

To uphold academic integrity and ensure a fair testing environment for all students, you will be asked to conduct a room scan and show a valid, official ID prior to beginning your examination. Please be aware that this process involves your webcam recording and inspecting your physical testing environment. This includes the surface of your desk, any surrounding walls, and the area under your desk. By participating in this course and its assessments, you acknowledge and consent to these conditions.

Your official ID should include your name, photo, and signature for identity verification purposes. Acceptable forms of ID include a university ID, driver's license, passport, or other government-issued identification. No examination will be permitted to start without a proper ID check.

### **What is my responsibility?**

For courses that utilize LockDown Browser & Respondus Monitor, students are required to have a Windows, MAC computer, iPad, or Chromebook, a Web Cam, and download the LockDown Browser. You will be prompted to download the Lockdown Browser when launching the quiz in MyCourses.

Need help? Contact

[Lockdown Browser/Respondus Monitor Support](#)

## **Availability of Course Content**

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To gain access to the course materials/modules, students must complete the course syllabus quiz during Week 1

## **Course Attendance**

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Instructors are required to report student attendance for the first and second weeks and at the 60% point in the class. For this class, students will be considered actively participating if they complete the minimum assignments, as listed below:

- 1st Week - Complete the Syllabus Quiz (in the *Begin Here* module)
- 2nd Week - Complete at least 70% of Module 1 assignments
- 60% Point - Complete the Midterm Exam and at least 70% of assignments to date

Students who do not meet the attendance requirements are subject to automatic withdrawal from the course

## **Technology Requirements & Policy**

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View the [MyCourses Minimum Technology Requirements](#).

Minimum Technical Skills: Students should know how to navigate the course and use the course tools (email, discussion, gradebook, etc.). MyCourses tutorials are available to students new to this LMS and are located at the beginning of the course. Most features on MyCourses are accessible on mobile devices, although it is recommended that you use a computer for quizzes, tests, and essay assignments.

## Accessibility of Technology

- [MyCourses \(Brightspace by Desire2Learn\) Accessibility](#)
- [Microsoft Accessibility](#)
- [Google \(YouTube\) Accessibility](#)
- [Panopto Accessibility](#)
- [Turnitin Accessibility](#)
- [Respondus Accessibility](#)
- [Cengage Accessibility](#)
- [McGraw-Hill Accessibility](#)
- [Pearson Accessibility](#)

## Privacy

- [MyCourses \(Brightspace by Desire2Learn\) Privacy](#)
- [Microsoft Privacy](#)
- [YouTube Privacy](#)
- [Panopto Privacy](#)
- [Turnitin Privacy](#)
- [Respondus Privacy](#) and [SPC's Respondus Security and Privacy FAQ](#)
- [Cengage Privacy](#)
- [McGraw-Hill Privacy](#)
- [Pearson Privacy](#)



## Important Dates

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**Class Dates:** 16-JAN-2024 to 10-MAY-2024

**Drop Date:** 19-JAN-2024

**Withdrawal Date:** Please reference the Academic Calendar below

<https://www.spcollege.edu/academic-calendar>

## Learner Support and Other Student Resources

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Use the following links to view web sites on SPC's:

- [Free Tutoring](#)
- [Accessibility Services](#)
- [Academic Support](#)
- [On-Campus and Online Support](#)
- [Student Services](#)

Additional Resources:

- [Academic Calendar](#)
- [Learning Resources](#)
- [Career Services](#)
- [International Student Services](#)
- [Veterans Services](#)

## Course Assignment Schedule

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**Students should use the MyCourses CALENDAR (located in the Navigation Bar at the top of the course page) to keep track of all deadlines.**

Final and midterm exams - 40%

Discussions - 20%

Module quizzes - 10%

Concept sketches - 15%

Activities - 15%

### **There are several different types of assignments in this course:**

#### Proctored Midterm Exam and Proctored Final Exam

These are worth 20% of your grade each for a total of 40%. The Final Exam is NOT cumulative, it will only cover the material from the second half of the class. Proctored means that they are supervised. We'll be doing our testing using Respondus. For more information please see the SPC Respondus Lockdown Browser and Monitor support page: <https://studentsupport.spcollege.edu/hc/en-us/sections/20385875837979-Respondus-Lockdown-Browser-and-Monitor>

#### Discussions

These are meant to encourage you to engage with your fellow students. You'll be given a topic to write about and asked to respond to other students writing as well. These are worth 20% of your grade.

#### Module Quizzes

Each module has a multiple choice quiz. These are open book with multiple attempts and are meant to help you gauge your progress and prepare for the exams. They're worth 10% of your grade. Students can take each quiz up to three times! Many students do not take advantage of this opportunity to virtually guarantee a perfect score on each quiz

## Concept Sketches

Concept Sketches are drawings or diagrams that also include written annotations and labels that describe concepts, relationships and processes of a "system". Concept sketches can be really powerful study aids and they are very useful in gauging a student's understating of course content. Students are often confused about what exactly is required in a concept sketch based assignment. But fear not(!) - the first concept sketch assignment contains a lot of useful information and guidance about this powerful learning tool. And remember - artistic "talent" is irrelevant. Students will ever, ever, be graded on the "beauty" or "artistry" of a concept sketch. These are worth 15% of your grade.

## Activities & Concept Sketches

The activities for this class are usually (but not always) something you download and complete. There are times when you will be required to photograph or scan your work then submit to the Dropbox. These are worth 15% of your grade. An accessible assignment option is available for the Concept Sketches for those learners with sight accommodations. Please contact your instructor for more information.

## **LATE ASSIGNMENT POLICY**

Students may submit any assignment late up until the posted Final Deadline for Submissions specified below and in the Course Calendar.

Assignments submitted after the posted deadline are subject to a 20% late penalty.

Assignments that are not submitted will be scored as zero and included in the final grade calculation.

## **FINAL SUBMISSION DEADLINE**

All assignments must be submitted by 10:00pm EST Wednesday May 8, 2024

## **Communication Plan**

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### **Communication Channels**

- I will use MyCourses announcements for broad and general communication of important course information.
- I will use the MyCourses email tool for direct communication with individual students or when important course information needs to be conveyed.
- I will use the MyCourses SParC text messaging system for for extremely urgent communication with individual students

Students should ONLY USE the MyCourses email tool to communicate with me. Do not send course related email messages to my [goddard.ethan@spcollege.edu](mailto:goddard.ethan@spcollege.edu) email address as those message may be delayed by the SPC email filtering system.

### **Response Time**

- Response time for messages sent Monday to Friday is usually 24-48 hours.
- Response time for messages sent on Saturday or Sunday is usually 48-72 hours.

Assignments will be graded by 7 days after the due date.

## Communication Schedule

Course Announcements are issued frequently, usually every three to four days and more frequently near the beginning and end of the term. Students should log in to the course frequently and pay attention to the home page where course announcements are posted.

## Students' and Instructor's Expectations

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It is important that all of your attention be focused on the content to be learned so when you are in class you shouldn't be using your computer, cell phone, and tablet for casual use, only academic purposes. Any use of these devices (including texting) for non-academic purposes draws your attention away from the course work and is therefore subject to disciplinary action. Whether you are taking a course online, blended, or in the classroom, you may be required to have discussions of class assignments and share papers and other class materials with instructors and classmates online. The learning management system, MyCourses, will be used for this purpose and you should complete the Introduction to MyCourses so that you are comfortable with the system and can complete your assignments. Whether you are in an online class or a physical classroom, certain behaviors are expected when you communicate with your peers and your instructors. You need to contribute to a positive learning/teaching environment, respecting the rights of others and their opportunity to learn. No one has the right to interfere with the teaching/learning process. Below are the traits of a successful student. These guidelines pertain whether your course is online or in the classroom. When communicating, you should always:

- Treat everyone with respect in every communication
- Use your professor's proper title: Dr. or Prof., or if you are in doubt use Mr. or Ms.
- Use clear and concise language
- Remember that college level communication should use correct grammar, whether written or spoken. Avoid slang.
- Use correct spelling and avoid texting abbreviations
- Avoid using the caps lock feature as it can be interpreted as yelling online
- Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and, even when spoken, your message might be misunderstood

- Be cautious with personal information (both yours and others')

### **Online Student Participation and Conduct Guidelines**

The practices of courtesy and respect that apply in the on-campus classroom also apply online. Any discriminatory, derogatory, or inappropriate comments are unacceptable and subject to the same disciplinary action applied in courses offered on campus.

#### **When you send an email to your instructor, department chair, dean, or classmates, you should:**

- Use a subject line that describes what you are writing about
- Avoid attachments unless you are sure your recipients can open them
- Be clear, concise, and courteous
- Sign your message with your name
- Use your SPC email account to ensure delivery. Sometime emails from non-SPC accounts are stopped by the spam filter and the recipient may not receive it.

Your faculty member will include in the syllabus expectations for response times on email.

#### **Recordings in the classroom:**

Students may record lecturers in class for personal use (such as studying or documenting complaints to the institution) without explicit permission. However, students may not record non-lecture portions of class (such as skills labs, student group work, individual student instruction, Q/A sessions, recording studio critiques, group/individual production and computer lab time, practicums/internships, or clinical/simulation rotations) or other students without explicit permission, and may not disrupt class in making such recordings (such as trying to use a device with a calculator or calculator app in a class that does not allow calculators, or blocking the view or aisles for others in the class). Having an approved ADA accommodation is considered explicit permission to record from the college.

Students making such recordings may not share recordings without explicit permission and are personally liable for unauthorized dissemination. If in doubt, please discuss with your professor before class.

**When posting to a discussion board, you should:**

- Write posts that are on-topic and within the scope of the course material
- Take your posts seriously; review and edit your posts before sending
- Be as brief as possible while still making a thorough comment
- Always give proper credit when referencing or quoting another source
- Read all messages in a thread before replying
- Avoid repeating someone else's post without adding something of your own to it
- Avoid short, generic replies such as, "I agree." You should include why you agree or add to the previous point
- Always be respectful of others' opinions, even when they differ from your own
- Express any differing opinions in a respectful, non-critical way
- Not make personal or insulting remarks
- Be open-minded

The instructor has the **authority** to ask a disruptive student to leave a classroom or lab. The instructor may also delete posts or materials from an online or blended class and/or take disciplinary action if disruptive behavior continues. This ensures that all students in the class have an opportunity to learn.

**Academic Honesty Policies - Honor Code**

We expect you to be **honest** in all of your academic work. By enrolling at the College, you agree to obey all of the standards of **academic honesty** and **integrity** and you

should understand that failing to observe the rules may result in academic and disciplinary action, up to and including expulsion from the College. As members of the College community, you also have an ethical obligation to report violations of the SPC academic honesty policies you may witness. The academic honesty policy and procedures are available online:

- [Academic Honesty Policies, Honor Code](#)
- [Academic Integrity Policies and Procedures](#)

**These documents include details on what is meant by:**

- Cheating
- Bribery
- Misrepresentation
- Conspiracy
- Fabrication
- Collusion
- Duplicate submissions
- Academic misconduct
- Improper calculator, computer or online use

Some of your courses may include online material that is protected by copyright. This means that the work is available for you to use in your studies but you can't copy and share the materials ( [copyright.gov](#)). Please see [SPC's copyright information](#). It's your responsibility to be academically honest in all of your work.

## **How to Be a Successful Student**

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Attending class is vital to your success, particularly the first few days of class as you are introduced to the requirements and topics you will be covering. Therefore the college limits when you can add classes. Please [check our registration page](#) regarding when classes can be added.



You may drop a course through the [Drop with Refund](#) date listed on your Fee Schedule and be eligible for a refund, although withdrawing may affect your financial aid. If you are thinking of withdrawing, please speak with your instructor, an [Academic Advisor](#) or a [financial aid counselor](#).

Showing up is the first step in ensuring your academic success. Active participation is the next step - whether you are in a classroom or taking classes online. Each of your faculty will give details in the syllabus about their attendance policies. If you are going to miss a session, or be offline for any reason, please let your instructor know in advance. If you don't attend during the first two weeks of a term you will automatically be withdrawn from the class and this can cause serious problems if you receive financial aid. In fact, if you withdraw prior to completing 60% of a class and receive any form of federal financial aid (grants or loans) you will be required to repay a portion.

## **Policy: Attendance/Participation/Withdrawal**

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Withdrawing from a course with a "W" or "WF" may impact students' academic standing and financial aid eligibility including placing the student in early repayment. It is the student's responsibility to understand the consequences of withdrawing.

### **Attendance**

College policy requires students to attend class prior to the published drop deadline for the session in which the class is scheduled. The instructor is required to report non-attendance and the student will be dropped with a "W" grade penalty by the second week of classes.

It is the student's responsibility to know the attendance policy of the class in which they are enrolled.

- Depending on the modality of the course, attendance may be online, LIVE Online, blended, or on-campus.
- For LIVE Online classes, attendance will be taken online during the normal class meeting time/days.

- Students who are feeling ill for any reason should communicate in a timely manner with their instructor regarding attending online instead of on-campus, and/or the responsibility of excused absences. Students are also responsible to discuss completing any missed work with the instructor.

## **Participation**

College policy require the instructor to report any student who is not actively participating at the 60% point of a class. The instructor will report the student by the end of the week immediately following the 60% point of the class and the student will be withdrawn from the course and assigned a "W" grade. It is the student's responsibility to understand the instructor's requirements for 'active participation.'

## **Student Withdrawals**

Students will be able to withdraw themselves at any time during the term. However, requests submitted after the last date to withdraw with a "W" (see academic calendar) will result in a "WF". Students and instructors will automatically receive an email notification through their SPC email address whenever a withdrawal occurs. Students should consult with an academic advisor or financial assistance counselor prior to withdrawing from a class.

Students who wish to withdraw completely from SPC are not able to totally withdraw from all classes through MySPC. A student must contact an Academic Advisor to totally withdraw.

## **Student Survey of Instruction**

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The Student Survey of Instruction is administered in courses each semester. It is designed to improve the quality of instruction at St. Petersburg College. All student responses are confidential and anonymous and will be used solely for the purpose of performance improvement.

## **Turnitin**

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The instructor of this course may require use of Turnitin.com as a tool to promote learning. The tool flags similarity and mechanical issues in written work that merit review. Use of the service enables students and faculty to identify areas that can be strengthened through improved paraphrasing, integration of sources, or proper citation. Submitted papers remain as source documents in the Turnitin database solely for the purpose of detecting originality. Students retain full copyright to their works. Review the [Turnitin Usage Agreement](#) for full details. Students who do not wish to submit work through Turnitin must notify their instructor via course email within the first seven days of the course. In lieu of Turnitin use, faculty may require a student to submit copies of sources, preliminary drafts, a research journal, or an annotated bibliography.

View the [Reviewing a Turnitin/Originality Report](#) tutorial.

## **Safety and Security**

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We want to make sure that you are comfortable on campus and feel secure in your learning environment. The SPC campuses are very safe but you should be aware of your surroundings, just as you are anytime you are in a public space. In each classroom there is an Emergency Response Guide to help you during an emergency. It is also a good idea to be familiar with evacuation routes in buildings that you use frequently. **If you have an emergency, dial 911 immediately.** For information on campus safety and security policies, please call 727-791-2560. More information is also available on the [Campus Safety website](#).

The college website ([spcollege.edu](http://spcollege.edu)) is the best source of information in the event of an emergency. It's possible for something like a hurricane to disrupt classes on campus; if this happens there are plans on how to help you continue your education. You should be comfortable using MyCourses as the learning management system will be key in communicating with faculty about course materials and assignments. Make sure you complete the Introduction to MyCourses so that you are familiar with sending and receiving emails, participating in discussion posts, navigating through course materials, and submitting assignments. It is important to be able to use MyCourses for learning activities if your campus is closed.

Federal and state law requires a person designated as a "sexual predator or offender" to register with the Florida Department of Law Enforcement (FDLE). The FDLE is then required to notify the college if the person attends, or is employed, by a college or university. You can find out more information by calling the FDLE hotline (1-888-FL-PREDATOR) or by visiting [offender.fdle.state.fl.us/offender](http://offender.fdle.state.fl.us/offender). A list of sexual offenders or predators registered for classes at SPC is also available.

## **Titans Care (Student Assistance Program)**

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As an SPC student it's vital that you know Titans Care. You can access resources through [SPC's Student Assistance Program \(SAP\)](#), a collaborative resource for students with mental health or general life issues. SAP provides help and education in suicide prevention, mental health, substance abuse awareness and more. It is SPC's belief that supporting mental wellness is everyone's charge and that one loss as a result of substance abuse, mental illness, or suicide is one too many. If you or a loved one are considering suicide, please call the National Suicide Prevention Lifeline at 1-800-273-8255.

## **Student Concerns**

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St. Petersburg College wants to make sure that you are able to receive prompt and fair resolutions to any concerns that you might have. If you feel that you have had a bad experience with a college employee, or you have a concern about college facilities, please bring it to our attention. Begin by speaking directly to the person responsible for the department; direct conflict resolution is an important skill to develop and usually brings about the best results. If you aren't satisfied with the outcome, or are not comfortable approaching the person directly, you may submit the information using an online form: [web.spcollege.edu/survey/13002](http://web.spcollege.edu/survey/13002)

If you're not able to submit the form online yourself, feel free to ask a college employee to submit the form on your behalf.

## **SPC Vaccination Policy**

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SPC is concerned about the health and well-being of all students. We encourage all students to remain current on vaccinations as suggested by appropriate health

authorities. SPC does not require vaccinations for general admissions to our degree or certificate programs, with some exceptions for specific programs.

## **Instructional Continuity During Emergencies**

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The St. Petersburg College website at [www.spcollege.edu](http://www.spcollege.edu) is the official source of college information regarding the status of the institution. Other important information will be communicated via SPC Alert, local media outlets, and the college toll-free phone number 866-822-3978. All decisions concerning the discontinuation of college functions, cancellation of classes, or cessation of operations rest with the President or his/her designee. The College realizes that it is possible for a significant natural disaster to compromise SPC campus facilities sufficiently to disrupt the delivery of classes on campus/campuses for an extended period and is planning ways our operations can continue following such an emergency.

So, if a hurricane or other natural disaster causes significant damage to St. Petersburg College facilities, please visit the college website for an announcement of the College's plan to resume operations.

Further, in the event of such a disaster, the Instructor will continue using the Learning Management System (LMS) of MyCourses for continuation of all required learning and instructional activities in this course, including the issuing of graded online assignments and expectation of student completion of those graded assignments.

Therefore, to keep up with all activities in this course during and after a natural disaster, please plan to continue this course by maintaining online access to MyCourses (possibly through duration of the course's regularly scheduled end date). We will finish this course in MyCourses, as directed by your Instructor online, and your Instructor will use all graded assignments to assess and issue your final letter grade for this course, as normally planned, despite occurrence of the natural disaster.

For all current updates on pandemic conditions or other events, please visit SPC Updates at <https://www.spcollege.edu/spc-updates>

## Course Objectives

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1. The student will discuss scientific theory through Earth history by:
  - a. illustrating the use of the scientific method in the geological sciences.
  - b. describing the contributions of early and modern scientists to Earth history.
2. The student will classify rocks and minerals by:
  - a. categorizing examples of Sedimentary, Metamorphic, and Igneous Rocks as well as illustration of the rock cycle.
  - b. comparing the minerals of Moh's Hardness Scale and implementing the physical identification tools of minerals.
3. The student will explain the Theory of Plate Tectonics by:
  - a. comparing the types of plate boundaries and identifying modern examples of each.
  - b. describing evidence of plate tectonics.
  - c. identifying the evidence for continental drift.
4. The student will describe the Geologic Time Scale and preservation in Earth history by:
  - a. calculating ages of fossils or rocks based on numerical or radiometric dating using the "half-life" of parent to daughter isotopes.
  - b. the application of relative dates to stratigraphic sequences as well as through the use of index fossils.
  - c. explaining the types of fossilization methods as well as which types of sedimentary rocks and sedimentary environments are best for preservation.
5. The student will explain of the Theory of Evolution by:
  - a. discussing the basic concept of evolution and listing various lines of evolution through geologic time.
  - b. using cladistics to show evolution in specific organisms.
6. The student will interpret Precambrian Earth history by:
  - a. describing the formation of the Earth, early atmospheric composition, and early oceanic formation.
  - b. explaining the theories of the origin of early life forms.

c. comparing supercontinents of the Proterozoic Eon.

7. Students will describe the Earth during the Paleozoic Era by:

a. discussing the paleogeography of the Appalachian Mobile Belt and Taconic Orogeny.

b. discussing the Cambrian explosion of life through the use of the Burgess Shale fauna.

c. identifying the evolution of marine fauna including fish and trilobites.

d. classifying land fauna and flora including reptiles, amphibians, and the rise of land plants.

e. identifying the cause and results End Permian Extinction (Great Dying).

8. The student will describe the Earth during the Mesozoic Era by:

a. explaining the break up of Pangaea.

b. classifying fauna including dinosaurs and mammals as well as the major plant fauna.

c. discussing and describing the cause and results of the End Triassic Extinction (K-T Boundary).

9. The student will interpret Earth history in the Cenozoic Era by:

a. describing the rise of Cenozoic mountain belts.

b. explaining possible causes of the last Ice Age plus describing land forms and evidence of glaciation.

c. explaining evolution of mammals and plants in the Cenozoic Era.

d. describing the geology of the Florida peninsula through the Cenozoic as well as tracking the evolution and migration patterns of various extinct organisms that once roamed Florida.