

## EDCI 527 ONLINE



### Elementary Science Methods

**Summer 2023:** May 30 to July 21, 2023  
**Location:** Online  
**Instructor:** Gary Bradley, Ph.D.  
**Phone:** Office (423) 236-2519, Cell (828) 280-2239  
**Email:** [gbradley@southern.edu](mailto:gbradley@southern.edu)  
**Virtual Office Hours:** M-Th., 9:00-11:00 A.M. ET

Zoom Meeting Room: [CLICK HERE FOR ZOOM](#) (Thursdays at 11:00 A.M. ET) The sessions will be recorded and posted on eClass

**Online Campus Academic Support**  
Gus Martin – Online Campus Director  
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### eClass Tutorials

<https://eclass.e.southern.edu/course/view.php?id=14403>

### System Requirements

For system requirements, visit this page: <http://www.southern.edu/academics/academic-sites/online-campus/courses-support/requirements.html>

## Important Dates

May 30 – 1<sup>st</sup> day of class

June 1 – Last day to drop S2 Classes for full refund

July 4 – Independence Day Holiday

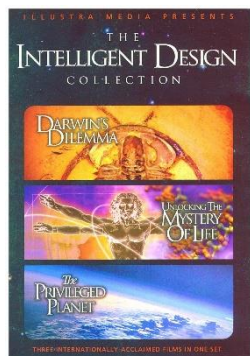
July 21 – Last day of class

**There are two required resources for you to purchase for this class:**



*Awesome Science Experiments for Kids: 100+ Fun STEM / STEAM Projects and Why They Work*

- Paperback: 254 pages
- Publisher: Rockridge Press (February 13, 2018)
- Language: English
- ISBN-10: 9781939754660
- ISBN-13: 978-1939754660



*The Intelligent Design Collection: Darwin's Dilemma, The Privileged Planet, Unlocking the Mystery of Life (DVDs)*

Authors: John Rhyes-Davies (Actor), and Lad Allen (Director)

ASIN: B0041ETK2A

DVD: [CLICK HERE](#)

**There is one required resource that is available free via the McKee Library:**

*The Case for STEM Education: Challenges and Opportunities*

Available online via Ebook Central - <https://ebookcentral.proquest.com/lib/southern-ebooks/detail.action?docID=1416112>

*Here are some additional resources you might want to have for your classroom or your personal library. They are recommended but not required for this course.*

### Smithsonian - STEM Lab

Author: Jack Challoner

Publisher: DK Children (January 2019)

ISBN-10: 1465475613

ISBN-13: 978-1465475619

### Choose You This Day (Book)

Authors: Leonard Brand and Richard M. Davidson

ISBN: 0816344345

Paperback: [http://www.amazon.com/Leonard-Brand-Richard-MDavidson/dp/B00FED4W0C/ref=sr\\_1\\_2?ie=UTF8&qid=1430321142&sr=8-2&keywords=0816344345](http://www.amazon.com/Leonard-Brand-Richard-MDavidson/dp/B00FED4W0C/ref=sr_1_2?ie=UTF8&qid=1430321142&sr=8-2&keywords=0816344345)

Kindle Edition: [http://www.amazon.com/Choose-You-This-Leonard-Brandebook/dp/B00COTR4HW/ref=sr\\_1\\_2?ie=UTF8&qid=1430321176&sr=8-2&keywords=Choose+you+this+day](http://www.amazon.com/Choose-You-This-Leonard-Brandebook/dp/B00COTR4HW/ref=sr_1_2?ie=UTF8&qid=1430321176&sr=8-2&keywords=Choose+you+this+day)

### **Fearfully and Wonderfully Made (Book)**

Authors: Paul Brand and Philip Yancey

ISBN: 0310354501

Paperback: [http://www.amazon.com/Fearfully-Wonderfully-Made-PhilipYancey/dp/031035451X/ref=tmm\\_pap\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321274](http://www.amazon.com/Fearfully-Wonderfully-Made-PhilipYancey/dp/031035451X/ref=tmm_pap_swatch_0?encoding=UTF8&sr=8-1&qid=1430321274)

Hardcover: [http://www.amazon.com/Fearfully-Wonderfully-Made-SurgeonSpiritual/dp/0310354501/ref=tmm\\_hrd\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321274](http://www.amazon.com/Fearfully-Wonderfully-Made-SurgeonSpiritual/dp/0310354501/ref=tmm_hrd_swatch_0?encoding=UTF8&sr=8-1&qid=1430321274)

Kindle Edition: [http://www.amazon.com/Fearfully-Wonderfully-Made-Philip-Yanceyebok/dp/B003JH83BE/ref=tmm\\_kin\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321274](http://www.amazon.com/Fearfully-Wonderfully-Made-Philip-Yanceyebok/dp/B003JH83BE/ref=tmm_kin_swatch_0?encoding=UTF8&sr=8-1&qid=1430321274)

### **Understanding Creation: Answers to Questions on Faith and Science (Book)**

Authors: Humberto M. Rasi and L. James Gibson

ISBN: 9780816324286

Hardcover: [http://www.amazon.com/Understanding-Creation-Answers-questionsscience/dp/081632428X/ref=sr\\_1\\_1?ie=UTF8&qid=1430321560&sr=8-1&keywords=9780816324286](http://www.amazon.com/Understanding-Creation-Answers-questionsscience/dp/081632428X/ref=sr_1_1?ie=UTF8&qid=1430321560&sr=8-1&keywords=9780816324286)

Kindle Edition: [http://www.amazon.com/Understanding-Creation-L-James-Gibsonbook/dp/B0073YEYC6/ref=tmm\\_kin\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321560](http://www.amazon.com/Understanding-Creation-L-James-Gibsonbook/dp/B0073YEYC6/ref=tmm_kin_swatch_0?encoding=UTF8&sr=8-1&qid=1430321560)

### **Men of Science, Men of God (Book)**

Author: Henry M. Morris

ISBN: 0890510806

Paperback: [http://www.amazon.com/Men-Science-God-HenryMorris/dp/0890510806/ref=sr\\_1\\_1?ie=UTF8&qid=1430321697&sr=8-1&keywords=0890510806](http://www.amazon.com/Men-Science-God-HenryMorris/dp/0890510806/ref=sr_1_1?ie=UTF8&qid=1430321697&sr=8-1&keywords=0890510806)

Kindle Edition: [http://www.amazon.com/Men-Science-God-Henry-Morrisebok/dp/B008SCBPNI/ref=tmm\\_kin\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321697](http://www.amazon.com/Men-Science-God-Henry-Morrisebok/dp/B008SCBPNI/ref=tmm_kin_swatch_0?encoding=UTF8&sr=8-1&qid=1430321697)

### **The Case for a Creator**

Author: Lee Strobel

ISBN: 0310241448

Paperback: [http://www.amazon.com/Case-Creator-Journalist-InvestigatesScientific/dp/0310252946/ref=tmm\\_pap\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321763](http://www.amazon.com/Case-Creator-Journalist-InvestigatesScientific/dp/0310252946/ref=tmm_pap_swatch_0?encoding=UTF8&sr=8-1&qid=1430321763)

Hardcover: [http://www.amazon.com/Case-Creator-Journalist-InvestigatesScientific/dp/0310241448/ref=tmm\\_hrd\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321763](http://www.amazon.com/Case-Creator-Journalist-InvestigatesScientific/dp/0310241448/ref=tmm_hrd_swatch_0?encoding=UTF8&sr=8-1&qid=1430321763)

Kindle Edition: [http://www.amazon.com/Case-Creator-Student-Journalist-Investigatesebok/dp/B000SERW7M/ref=tmm\\_kin\\_swatch\\_0?encoding=UTF8&sr=8-1&qid=1430321763](http://www.amazon.com/Case-Creator-Student-Journalist-Investigatesebok/dp/B000SERW7M/ref=tmm_kin_swatch_0?encoding=UTF8&sr=8-1&qid=1430321763)

### **Darwin's Black Box**

Author: Michael J. Behe

ISBN: 9780743290319

Paperback: [http://www.amazon.com/Darwins-Black-Box-BiochemicalChallenge/dp/0743290313/ref=sr\\_1\\_1?ie=UTF8&qid=1430321998&sr=8-1&keywords=9780743290319](http://www.amazon.com/Darwins-Black-Box-BiochemicalChallenge/dp/0743290313/ref=sr_1_1?ie=UTF8&qid=1430321998&sr=8-1&keywords=9780743290319)

Kindle Edition: [http://www.amazon.com/Darwins-Black-Box-Biochemical-ChallengeeBook/dp/B000FBJHS0/ref=sr\\_1\\_2?ie=UTF8&qid=1430321998&sr=8-2&keywords=9780743290319](http://www.amazon.com/Darwins-Black-Box-Biochemical-ChallengeeBook/dp/B000FBJHS0/ref=sr_1_2?ie=UTF8&qid=1430321998&sr=8-2&keywords=9780743290319)

### **Picture perfect science lessons: Expanded 2 nd Edition: Using Children’s Books to Guide Inquiry**

Authors: K.R. Ansberry and E. Morgan

ISBN: 9781935155164

Paperback: [http://www.amazon.com/Picture-Perfect-Science-Lessons-ExpandedChildrens/dp/1935155164/ref=sr\\_1\\_1?ie=UTF8&qid=1430325158&sr=8-1&keywords=9781935155164](http://www.amazon.com/Picture-Perfect-Science-Lessons-ExpandedChildrens/dp/1935155164/ref=sr_1_1?ie=UTF8&qid=1430325158&sr=8-1&keywords=9781935155164)

### **More Picture Perfect Science Lessons: using Children’s Books to Guide Inquiry, K-4**

Authors: K.R. Ansberry and E. Morgan

ISBN: 9781933531120

Paperback: [http://www.amazon.com/More-Picture-Perfect-ScienceLessons/dp/1933531126/ref=sr\\_1\\_1?ie=UTF8&qid=1430325238&sr=8-1&keywords=9781933531120](http://www.amazon.com/More-Picture-Perfect-ScienceLessons/dp/1933531126/ref=sr_1_1?ie=UTF8&qid=1430325238&sr=8-1&keywords=9781933531120)

### **Mission Statement**

The Seventh-day Adventist Church recognizes teaching as a ministry and, therefore, an essential element in spreading the Gospel to the entire world. By fostering a growing relationship with Jesus Christ, our Creator and Redeemer, Seventh-day Adventist teachers have the privilege of leading and encouraging students on their journey toward wholeness. The online teacher certification courses are designed for professionals who teach in Seventh-day Adventist schools. The focus is to advance scholarship and innovative teaching and learning practices to meet the needs of today’s diverse learners. The courses will provide opportunity for collegiality, discussion of important issues, and collaboration while utilizing the best available technology to promote excellence in teaching and learning.

### **EDCI 527 COURSE DESCRIPTION**

This course will provide meaningful and practical learning experiences, including active discussions and hands-on science activities, for elementary and middle school science classroom teachers. Teachers will grow in their ability to create effective science learning environments and understand the scientific process from a Seventh-day Adventist perspective. The ability to locate, evaluate, and use appropriate resources is an essential component. Emphasis is given to curriculum organization, lesson planning, and assessment. Differentiating instruction to meet the needs of diverse learners is addressed.

### **Learning Online**

Technology is revolutionizing education. Computer-enhanced presentations, interactive instructional media, Internet-connected classrooms, Web-based courses, student chat-rooms and asynchronous discussions, streaming audio and video, satellite-distributed learning, and virtual universities are but indicators of profound changes sweeping the instructional landscape. Utilizing interactive modes of instruction, the course focuses on preparing your heart and mind for furthering your ministry as a teacher. You are expected to participate actively in learning experiences through various technology media and prepare quality work. Basic competencies in word processing, Web browsing, email, and a compatible operating system are required as course entry points.

This course will employ the following instructional methodologies, among others:

- Select readings from scripture, Ellen White, and other experts
- Integration of core values into daily thought process
- Video lectures
- Web-based reference materials and resources
- Group discussion forums
- Live video conferencing sessions

### **Course Access and Teacher Certification Information**

The website for course access is <https://eclass.e.southern.edu/>. Here you will find an electronic version of the syllabus, descriptions of course activities and projects, and links to a variety of resources, including Southern Adventist University webmail, McKee Library, Campus Bookstore, and tutorials. This is also where you will access course grades. There are two ways that you can login to your online course. The course will appear as a link on your Southern Access account <http://access.southern.edu>. You can also put **eclass.e.southern.edu** into your browser and enter your username and password. If one method does not work, try the other method.

### **Profile Picture Policy**

All students enrolled in an online class at Southern Adventist University must upload a profile picture (instructions [here](#)) of themselves to the learning management system (LMS) used by Southern: eClass. The purpose of this is so that students and professors can better connect with the individual they will be working with over the course of the semester. Students who do not comply may not be able to register for future online courses. Please keep in mind when uploading your profile picture, that it must meet the following guidelines:

1. The photo should be a full-face likeness, similar to a passport photo or driver's license photo. No variations permitted.
2. Attire worn in the photo should adhere to the Southern Adventist University dress code.
3. The photo should show *only* you; there should be no distractions such as additional people or pets in the photo

### **Student Authentication**

To ensure the integrity of the education Southern Adventist University provides, it is critical that students who are enrolled in distance education courses adhere to university policies related to Academic Honesty and that students who enroll in distance education courses and programs are the same students who complete and submit work and assignments in those courses or programs. Violation of this policy will be considered Academic Dishonesty and will be dealt with according to the Procedures for Handling Academic Dishonesty (Southern Adventist University 2017-2018 Catalog, p. 32). The full statement from the Higher Education Opportunity Act of 2008 (HEOA), can be found [here](#).

All students, including those who enroll in a distance education courses at Southern Adventist University for the first time, are required to authenticate their identity at the time of initial registration in their first semester at Southern. Students who do not authenticate their identity during the semester in which they are asked to do so will receive an incomplete in the online course(s) they are currently enrolled in. This incomplete will become an F at the end of the semester if the authentication has not been completed. The student will also be barred from registering for any online class in subsequent semesters until the authentication is completed. The student may accomplish this using one of the following options: 1) Authenticate in person at Southern Adventist University, or 2) Authenticate online with Southern's secure identity verification partner, UCard, a

subdivision of ProctorU. Fees for this authentication are the responsibility of the student. Student instructions for completing their authentication with UCard are available [here](#).

### **Transcripts**

Students may request a transcript to be sent to your parent institution and/or your union registrar. Requests can be made at <http://www.southern.edu/administration/records/transcripts.html>

### **Accommodation for Disabilities**

During short summer sessions, in keeping with university policy, any student who believes they may need an accommodation based on the impact of a disability or learning challenge should contact Disability Support Services at 423-236-2544 or stop by Lynn Wood Hall, room 1082 as soon as possible to arrange a confidential appointment with the Disability Services Director. Please note that accommodations are not retroactive and cannot be implemented until faculty or staff members have received the official Letter of Accommodation from DSS. Specific details of disabilities remain confidential between students and DSS unless a student chooses to disclose or there is a legitimate academic need for disclosure, which is on a case-by-case basis. For further details, visit the Disability Support Services website at [www.southern.edu/administration/student-success/disability](http://www.southern.edu/administration/student-success/disability).

**Keeping in Touch.** To facilitate communication between the instructor and learners, all class members are encouraged and expected to regularly check their southern.edu email account and the “News Forum” under the **Course Resources** within your eClass course. All eClass announcements posted to the class will be considered public class announcements. When communicating with an instructor, students can typically expect a response within 24 hours (except between Friday sundown to Saturday sundown).

### **Required Technology**

You must have a webcam and a microphone. Many laptops have a built-in webcam, but if yours does not, you must purchase an external one or have access to one for all live sessions. Live sessions will be used in most teacher certification courses, so if you take courses with Southern again, you’ll need to use a webcam and microphone again.

**Course Evaluation.** Southern requires all students enrolled in courses, on campus or online, to complete course evaluations as part of the ongoing process of improving course delivery and academic standards. As an online student, you are encouraged to fill out the course evaluation. A few minutes of your time and your honest feedback will assist your professor in shaping the course for future semesters and will provide academic administration additional information regarding the professor’s qualification when his or her professional portfolio is reviewed. The faculty welcome your feedback and would like to strongly encourage you to add your own comments, both telling them how you were positively impacted and if you have any suggestions for improvement.

You may access the course evaluation at <https://myaccess.southern.edu/apps/courseevaluation>.

1. Log in using your Southern username and password.
2. Choose the professor and class you wish to evaluate from the list you see.

If you have problems with, or questions regarding this online course evaluation, please contact Teresa Adams at [teresas@southern.edu](mailto:teresas@southern.edu). All comments and evaluations are completely anonymous and the results

are made available to the professor only after grades are submitted to the Records Office. Thank you very much for taking the time to do to this.

**Disclaimers.** This course syllabus and attached schedule are subject to change at short notice. The instructor will endeavor to keep the changes minimal and communicate changes within the course site on eClass, but change may be necessary during the semester. Kindly be alert to announcements (either via eClass or via email) that may modify the syllabus or schedule. The subject material is often of such nature that there are many good approaches or answers. Therefore, although the instructor is educated and experienced, he/she does not know everything, nor does he/she have the answer to every question that may be asked. In addition, there will be subjects and issues on which he/she may have a biased viewpoint. However, the instructor will make every effort to indicate bias, and learners are free to agree or disagree.

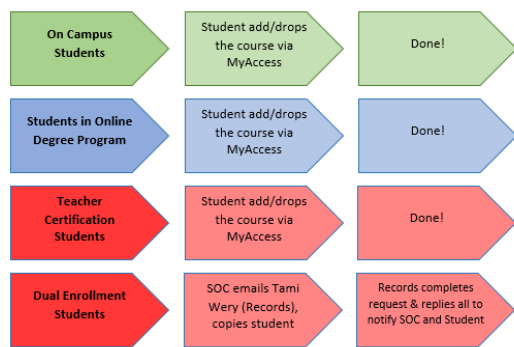
### **Drops/Incompletes**

Prior to the deadline date, students not completing the course for any reason are required to send a single email to both 1) the Course Instructor, and 2) Online Campus ([online@southern.edu](mailto:online@southern.edu)) as recipients requesting permission to drop the online course, and this email should include the reason for the drop request. The course instructor's email response (approving the drop request) will then be forwarded by the Online Campus directly to the Records Office. On-campus students and students who are in online degree programs must complete an Add/Drop Form, have their own advisor and the instructor sign it, and then submit it to Records and Advisement. This is the student's responsibility. Failure to comply with this procedure may result in a failing grade for the course. A grade of Incomplete (I) will be given only under extreme circumstances. Students must complete a written request for an Incomplete before any extensions will be considered. According to the policy of the College, any incomplete (I) grade that is not removed by the end of the following term (fall, winter) will automatically become an "F." It is the student's responsibility to make arrangements with the instructor to complete the course on time.

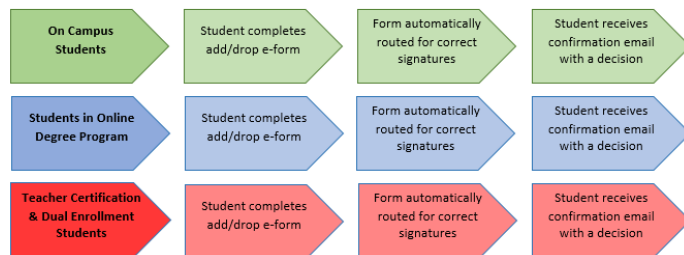
### **Policy for Requesting Date Extension for Online Learning**

1. Students who require an extension of the course completion date due to extenuating circumstances must submit a request for an extension.
2. Requests must be made via the form provided at [southern.edu/online](http://southern.edu/online) at least 10 days prior to the last day of the course.
3. The request must include the following information:
  - a. Reason for the extension request
  - b. The anticipated length of the extension
  - c. The proposed completion date for the course
  - d. Any supporting documentation or evidence that may be relevant to the request. (i.e., doctor's note)
4. A committee will review the request and make a determination within five business days.
5. If the extension request is approved, Online Campus will communicate the new course completion date to the student in writing.
6. If the extension request is denied, the student may appeal the decision by submitting a written appeal to the committee within two business days of the denial notification.
7. Students who do not complete the course by the original or extended completion date may receive a failing grade for the course.
8. This policy is subject to review and revision as needed.

**Add/drop process BEFORE the add/drop date**



**Add/drop process AFTER the add/drop date**



**Tuition Refund.** Because the Summer sessions are condensed into a shorter period of time than the Fall and Winter semesters, the last day to drop a summer teacher certification course and receive a 100% refund is within the first week of classes. If you must drop a course, you must officially notify your professor and the Online Campus through email.

### University Standard for Writing

Southern has specific expectations for written work graduate level scholars. Although you will turn in your papers and other written assignments electronically, the correct mechanics of proper punctuation, sentence structure and paragraph organization is expected. If this course is part of a graduate program you will be required to format your work according to the American Psychological Association’s (APA’s) style. If you are not familiar with that style, we have provided a helpful link <https://owl.english.purdue.edu/>. You can also utilize the interactive tutorial from McKee Library: <http://southern.libsurveys.com/APAtutorial>

### Live Sessions

In this course, we will be having live sessions using Zoom [CLICK HERE FOR ZOOM](#) (Thursdays at 11:00 A.M. ET). You will join the live session by clicking on the link provided in eClass. The link may also be provided at the beginning of the syllabus. We recommend that you use a computer with a microphone and webcam or at a minimum that you purchase a headset with a built-in microphone that has either a stereo jack or a USB plug in, depending on your specific computer. Students without these headsets can struggle to participate fully in live sessions and may experience echoing or other issues when attempting to speak into their computer’s microphone. Background noise is also minimized with the use of a headset.

Students who are able to participate in the live Zoom session will receive full credit for the Online Class Discussion. Students whose schedule prevents them from participating in the live zoom meeting will



watch the meeting and then post a 200-300 word reflection of items they found valuable in the slides and/or video. These sessions will be recorded. Please watch these sessions and click through the slides if you were not able to attend the live session. Post your reflection in eClass

Students may use mobile devices for live sessions and will need to download the meeting room app from their app store. Alternatively, you may use your device to go into eClass where you should click the meeting room link provided in Course Resources and follow the prompts for downloading the app. If you plan on using this approach, please ensure that you go through this process well in advance of the live session in order to have time for troubleshooting and acclimating to the way Zoom navigates on a mobile device. If you're having trouble connecting to the live session, please contact [eClasshelp@southern.edu](mailto:eClasshelp@southern.edu) for assistance. You may also click on the Tech Support Icon in eClass and fill out a technical support ticket.

These live sessions will benefit you by providing the opportunity for you to interact in real time with your professor and fellow students. During live sessions you will be able to ask questions about projects or papers as well as course content. While points may not be given in this course for live session attendance, students are expected to attend. Those who have a scheduling conflict and are unable to attend are expected to view the recording of the live session as soon as possible. If you are aware in advance that you cannot attend a live session, you are urged to submit your questions in advance to the professor via email or in the course Q&A forum. During the live session, your questions will be answered for you, and you can watch the recording at your convenience. Please see the course schedule for the tentative day/time of your live sessions. If a live session must be cancelled, your professor will post an announcement in the eClass News Forum as soon in advance as possible.

## **EDCI 527T GOALS AND OBJECTIVES**

The goals of the course are to:

- Provide learning activities that help teachers more fully understand the strengths and limitations of the scientific process, particularly as it relates to worldview and the interpretation of data.
- Help teachers understand the claims of creation and evolution and the evidence used to support those claims.
- Introduce teachers to the new By Design science textbooks, focusing specifically on topics that are origins-related.
- Increase content knowledge to use in teaching experiences.
- Increase understanding of and ability to use inquiry-based activities in their classrooms.
- Increase ability to differentiate instruction for diverse learners in science class.
- Provide opportunities for a variety of inquiry-based science activities which range from inexpensive and everyday materials to commercial programs.

**Objectives. Upon successful completion of the course, teachers will be able to:**

- Define science and describe its relation to God.
- Differentiate between empirical and historical science.
- Explain how worldview affects the interpretation of scientific data.
- Articulate the claims of several theories of origins.
- Explain evidence from life science that is consistent with creation.
- Explain evidence from earth science that is consistent with creation and the flood.
- Articulate, from a Seventh-day Adventist perspective, the biblical foundation of science and the role of faith when unanswered questions exist.

- Plan, implement, and assess inquiry-based science lessons that meet the needs of diverse learners.

### Plagiarism Policy:

Work that is submitted for credit must be the original work of the learner and specifically prepared for this course. Assignments that are not the original work of the learner are considered plagiarized and in violation of the honesty code. Plagiarism occurs when another person's work, words, or ideas are represented as one's own without the use of a school-recognized method of citation (e.g., copied from another source such as an author or another co-learner without properly acknowledging the actual writer/author). Plagiarism also occurs when knowingly giving or allowing one's own work to be copied or otherwise duplicated by another for academic credit, or when resubmitting one's own work for academic credit. Using any content from the Web without citing is plagiarism. The penalty for plagiarism may include a grade of F being recorded for the course.

### University Policies and Additional Syllabus Information

Additional information on important policies and procedures, such as, but not limited to, disabilities and accommodations, academic honesty, and student authentication, can be found in the link provided at the end of this paragraph. The document also provides valuable information regarding instructional strategies/methodologies and how to access eClass, technology support, learning methods, resources available in eClass, etc. To access the document, click here. Be aware that you will be accountable for the provided information.

### 527 Course Assignments

The grading system for this course is designed to assess your work from both a theoretical and practical perspective and covers a variety of assessments to measure performance toward achievement of the class goals and objectives.

<b>Summary of Course Assignments and Percent Values</b>	
Online Sessions Live or Recorded	10%
Quizzes	10%
Class Discussion	20%
Assignments	40%
Midterm and Final	20%
<b>Total:</b>	<b>100 %</b>

### Grade Symbols for This Course

<b>A</b> 93 – 100	<b>B+</b> 88 – 89	<b>C+</b> 78 – 79	<b>D</b> 65 – 69
<b>A-</b> 90 – 92	<b>B</b> 83 – 87	<b>C</b> 73 – 77	<b>F</b> 64 and below
	<b>B-</b> 80 – 82	<b>C-</b> 70 – 72	

To pass you must obtain a minimum overall of a C average in the course. Across the entire program, the minimum grade of C is permitted in **no more than two courses**.

## Academic Integrity/Ethics

Academic integrity is an integral part of the educational process. In this university setting, we seek to nurture independent thought and to maintain a professional and Christian code of ethics that upholds our own personal integrity and that of the academic community. Consequently, dishonesty of any kind is unacceptable and will result in a failing final grade for the course. If you are uncertain if a course of action is ethical, please refer to the Academic Honesty Policy that you will find at [https://www.southern.edu/PublishingImages/academic\\_honesty.pdf](https://www.southern.edu/PublishingImages/academic_honesty.pdf)

**Midterm: Science Project:** Science projects are an excellent way for your elementary math students to apply all that great content that you have been teaching them. These projects allow your students to use Bloom’s higher-level thinking skills such as synthesis, analysis, evaluation, and creativity. The midterm exam is a project that will give you the opportunity to develop 3 different science projects. You can use these projects for your own math class as an end of chapter application, end of unit application, or an end of semester application.

## Science Project Rubric

	SCORE = 5 PERFECT SCORE	SCORE = 4	SCORE = 3	SCORE = 2	SCORE = 1
FULLFILLMENT OF PURPOSE	<ul style="list-style-type: none"> <li>❑ The presentation had a sharp, distinct focus.</li> <li>❑ The presenter used appropriate mathematical vocabulary and used it correctly.</li> <li>❑ The scope of the presentation was excellent, considering both the topic and time allowed</li> <li>❑ The presenter showed excellent depth of understanding of relevant mathematical concepts and principles.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had a clear focus.</li> <li>❑ The presenter used appropriate mathematical vocabulary and used it correctly.</li> <li>❑ The scope of the presentation was appropriate, considering both the topic and time allowed.</li> <li>❑ The presenter showed proficient depth of understanding of relevant mathematical concepts and principles.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had adequate focus.</li> <li>❑ The presenter used appropriate mathematical vocabulary with a minor error or two.</li> <li>❑ The scope of the presentation was somewhat limited, considering both the topic and time allowed.</li> <li>❑ The presenter showed satisfactory depth of understanding of relevant mathematical concepts and principles.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had vague focus.</li> <li>❑ The presenter did not use appropriate mathematical vocabulary and/or had errors in the use of mathematical terms.</li> <li>❑ The scope of the presentation was very limited, considering both the topic and time allowed.</li> <li>❑ The presenter showed limited depth of understanding of relevant mathematical concepts and principles.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had an absence of focus.</li> <li>❑ The presenter did not use appropriate mathematical vocabulary and/or had errors in the use of mathematical terms.</li> <li>❑ The scope of the presentation was inappropriate.</li> <li>❑ The presenter lacked depth of understanding of relevant mathematical concepts and principles.</li> </ul>
CONTENT	<ul style="list-style-type: none"> <li>❑ The presentation had substantial, specific and illustrative content.</li> <li>❑ The presenter includes complete, specific example(s) of practical application or correlation with other disciplines. (This does not apply to pure math presentations.)</li> <li>❑ The project contained no mathematical errors.</li> <li>❑ The presenter used appropriate mathematical notation and used it correctly.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had specific and illustrative content.</li> <li>❑ The presenter gives example(s) of practical application or correlation with other disciplines. (This does not apply to pure math presentations.)</li> <li>❑ The project contained no mathematical errors.</li> <li>❑ The presenter used appropriate mathematical notation and used it correctly.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had sufficient content.</li> <li>❑ The presenter makes reference to practical application or correlation with other disciplines. (This does not apply to pure math presentations.)</li> <li>❑ The project contained limited minor mathematical errors.</li> <li>❑ The presenter used appropriate mathematical notation with a minor error or two.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had limited content.</li> <li>❑ The presenter is unaware of practical application or correlation with other disciplines. (This does not apply to pure math presentations.)</li> <li>❑ The project contained multiple minor mathematical errors or a major mathematical error.</li> <li>❑ The presenter did not use appropriate mathematical notation and/or made notational errors.</li> </ul>	<ul style="list-style-type: none"> <li>❑ The presentation had an absence of relevant content.</li> <li>❑ The presenter is unaware of practical application or correlation with other disciplines. (This does not apply to pure math presentations.)</li> <li>❑ The project contained substantial mathematical errors.</li> <li>❑ The presenter did not use appropriate mathematical notation and/or made notational errors.</li> </ul>

## Final: Historical Development of Science/Technology

Think about the current technology that we regularly take for granted such as genetic engineering, gene therapy, antibiotics, diet & exercise, global warming awareness, and clean water we drink. How did we get to what we know today? What were the advances in technology that helped us get to what we enjoy today?

Create a lesson presentation on a topic that outlines at least 7 major steps of science or technology advances as well as the people who made them via a digital slide presentation using the application of your choice. Your presentation should take 10-15 minutes in length. It should include other video clips, pictures, text, archives and a quiz. Think about what you find interesting in your research and what your students might find interesting. Be sure to include your sources, citing appropriately throughout the lesson presentation in a works cited page at the end of the presentation. Your project will be evaluated using the rubric below.

### Historical Development Rubric

Category	Unsatisfactory 1	Satisfactory 3	More than Satisfactory 4	Exemplary 5	Score
<b>Quality of Learning Aid/Presentation Materials</b>	Materials do not contribute to the learning process, do not add to the presentation and/or are not easy to follow. There are numerous grammatical, mechanical and/or spelling errors that make the presentation and materials difficult to read.	Materials contribute somewhat to the learning process, add to the presentation and are user-friendly and easy to follow. The materials may contain 1-2 grammatical, mechanical and/or spelling errors that do not distract the reader.	Materials contribute to the learning process, add to the presentation and are user-friendly and easy to follow. The materials may contain 1-2 grammatical, mechanical and/or spelling errors that do not distract the reader.	Materials greatly contribute to the learning process and are well-developed, user-friendly, and easy to follow. In addition, the presentation and materials are free of grammatical, mechanical and/or spelling errors.	
<b>References</b> <i>(Sources of information are properly cited so that the audience can determine the credibility and authority.)</i>	Individuals document the use of 3 or less sources and/or there is no way to check validity of information.	Individuals document the use of 4 sources with at least 2 from peer-reviewed journals. Some sources of information use proper APA citations. Sources are documented to make it possible to check on the accuracy of information.	Individuals document the use of 5 sources with at least 3 from peer-reviewed journals. Most sources of information use proper APA citations. Sources are documented to make it possible to check on the accuracy of information.	Individuals document the use of 6 sources, with at least 3 from peer-reviewed journals. All sources of information are credited using correct APA citations throughout the project.	
<b>Quality of Content</b>	Presentation is inaccurate and/or shows a surface knowledge only. The candidate fails to include or includes an inaccurate summary of research on the topic.	Presentation shows some understanding of subject but little depth. The candidate includes a summary of research on the topic, including some peer-reviewed works, and uses this research in some ways to inform the materials selected and presented to the viewer.	Presentation is accurate and almost all areas show depth of thought and research. The candidate includes a an accurate summary of peer-reviewed research on the topic and uses this research to inform the materials selected and presented to the viewer.	Presentation shows <i>remarkable</i> depth of thought and research. The candidate includes a detailed, accurate summary of peer-reviewed research on the topic and uses this research to inform the materials selected and presented to the viewer.	

## Graduate Level Discussion Forum Rubric

<b>Criteria</b>	<b>Minimal (1 point)</b>	<b>Needs Improvement (2 points)</b>	<b>Developing (3 points)</b>	<b>Advanced (4 points)</b>
<b>Participation</b>	Limited to 1 post on a single day during the week.	Limited to 1 post on a single day during the week.	Posts their own responses and responds to one other student post.	Posts their own responses and responds to two or more other student posts.
<b>Initial Post</b>	Posts comprised of information that is off-topic and/or irrelevant to discussion or superficial. No references from literature incorporated.	Posts are marginally developed. Some key aspects are addressed. Few references from literature and personal experience are incorporated.	Posts are well-developed and address key aspects of the topic but lack full development of concepts. Some references from literature and personal experience are incorporated.	Posts are well-developed, fully address key aspects of the topic, and demonstrate that content was synthesized. A number of references from literature and personal experience are incorporated.
<b>Follow-Up Posts</b>	Posts are largely limited to agreeing or disagreeing with the posts of others. No references to readings and literature support comments. Little thought, effort, and/or study is evident in posts and replies.	Posts are superficial and do not add substantive info to the discussion. Few references to readings and literature support comments. Marginally adequate thought, effort, and/or study is evident.	Posts extend discussion by elaborating on the posts of other students. Opposing viewpoints are considered and some connections made to move the discussion forward. Some references to readings and literature support comments. Sufficient thought, effort, and/or study is evident.	Posts extend meaningful discussion by elaborating on the posts of other students. Opposing viewpoints are considered, connections made, and ideas are synthesized to move the discussion forward. References to readings and literature support comments. High level of thought, effort, and/or study is evident in posts.
<b>Style and Mechanics</b>	Some use of slang and/or abbreviations as seen in informal texts. Contains many spelling, grammatical, and/or mechanical errors.	Limited use of informal language. Contains several spelling, grammatical, and/or mechanical errors.	Some use of informal language. Some spelling, grammatical, and/or mechanical errors.	Communicates using terminology that exemplifies the professional nature of the field. No spelling, grammatical, and/or mechanical errors.