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Syllabus

The Global Scientific Revolution and Its Impact on Quality of Life

1171-FIU01-IDS-3212-SECRVC-11096

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GENERAL INFORMATION



Instructor:

Dr. Xuewen Wang

Office:

CP216, MMC

Office Hours:

Virtual Office Hours, M & W 1:00-2:00pm, otherwise send me a message

Phone:

(305) 348-3064

Email:

Use Bb messages for course-related communication

Course Description And Purpose

The primary focus of this course is the advances in sciences and their application in technology in the last century, and how these advances have reshaped the lives of communities and radically altered their relationship with each other as well as with their environment. Specifically, how would the two science themes (renewable energy and information technology) and global dynamic systems such as economic development and socio-political/physical environment influence each other at the community level and national and international level.

Course Objectives

Students will be able to:

- identify and describe issues arising from the way scientific advances impact the quality of life in communities across the globe.
- critically analyze and evaluate interrelationships between advances in science and the quality of life in different communities across the globe.

This course is designed to explore how scientific advances change the lives of communities globally and teaches non-science majors basic concepts in energy and technology that they use in daily lives.

Specifically, the course will focus on the production and consumption of renewable energies and

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innovative electronics in communication and medicine, and discuss their impact on the global economy and the quality of life of communities across the globe.

Science Simulation Experiments: Students will be able to learn scientific concepts by engaging in online interactive simulation exercises.

Thought Experiments: Students will be engaged in the investigation of global issues for each thought experiment. At the first stage students will be able to provide individual reports as to the outcome of their thought experiment. At the second stage, teams of students will be ready to engage in group discussions to discuss the questions in chat rooms and produce a team report on the same issue.

Global Engagement in Labs: The students will be able to integrate the science simulation and thought experiments to come up with solutions and proposals as to how governmental and non-governmental organizations in their communities can use the advances in sciences more effectively.

Global Learning Course Outcomes

- Global Awareness: Students will be able to critically analyze the interrelationship between advances in science and quality of life in different communities around the globe.
- Global Perspective: Students will be able to articulate multiple perspectives on the interrelationship between advances in science and the quality of life experienced by different communities.
- Global Engagement: Students will demonstrate a willingness to address issues arising from the way scientific advances impact the quality of life in communities across the globe.

IMPORTANT INFORMATION

Policies

Please review the [policies page](#) as it contains essential information regarding guidelines relevant to all courses at FIU and additional information on the standards for acceptable netiquette important for online courses.

Technical Requirements & Skills

One of the greatest barriers to taking an online course is a lack of basic computer literacy. By computer literacy we mean being able to manage and organize computer files efficiently, and learning to use your computer's operating system and software quickly and easily. Keep in mind that this is not a computer literacy course; but students enrolled in online courses are expected to have moderate proficiency using a computer. Please go to the "[What's Required](#)" webpage to find out more information on this subject.

Please visit our [Technical Requirements](#) webpage for additional information.

Accessibility And Accommodation

Please visit our [ADA Compliance](#) webpage for information about accessibility involving the tools used in this course.

Please visit [Blackboard's Commitment Accessibility](#) webpage for more information.

For additional assistance please contact FIU's [Disability Resource Center](#).

Course Prerequisites

There are no prerequisites for this course.

Academic Misconduct Statement

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the

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educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

Academic Misconduct includes: **Cheating** – The unauthorized use of books, notes, aids, electronic sources; or assistance from another person with respect to examinations, course assignments, field service reports, class recitations; or the unauthorized possession of examination papers or course materials, whether originally authorized or not. **Plagiarism** – The use and appropriation of another's work without any indication of the source and the representation of such work as the student's own. Any student who fails to give credit for ideas, expressions or materials taken from another source, including internet sources, is responsible for plagiarism.

Learn more about the [academic integrity policies and procedures](#) as well as [student resources](#) that can help you prepare for a successful semester.

Proctored Exam Policy

Please note that the information contained in this section applies only if your course requires a proctored exam.

Through a careful examination of this syllabus, it is the student's responsibility to determine whether this online course requires proctored exams. Please visit our [Student Proctored Exam Instructions](#) webpage for important information concerning proctored exams, proctoring centers, and important forms.

Textbook

No textbook required

Expectations Of This Course

This is an online course, which means most (if not all) of the course work will be conducted online.

Expectations for performance in an online course are the same for a traditional course. In fact, online courses require a degree of self-motivation, self-discipline, and technology skills which can make these courses more demanding for some students.

Students are expected to:

- Review the how to get started information located in the course content
- Introduce yourself to the class during the first week by posting a self introduction in the appropriate discussion forum
- Take the practice quiz to ensure that your computer is compatible with Blackboard
- Interact online with instructor/s and peers
- Review and follow the course calendar
- Log in to the course no later than Wednesday of each week for new module
- Respond to discussion boards, blogs and journal postings by the end of the week
- Respond to messages within two days
- Submit assignments by the corresponding deadline
- Promptly resolve technical issues with technical support and inform instructor if need any extension on the assignment

The instructor will:

- Log in to the course everyday of the weekdays and once on weekends no later than Sunday noon
- Respond to discussion boards, blogs and journal postings within 2 days
- Respond to messages within 2 days
- Grade assignments within 7 days of the assignment deadline

Weekly Learning Objective

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Students will be able to:

20. Introduce yourself to the class; take the global awareness test
21. Able to identify the physical quantities with their appropriate units; able to perform basic unit conversions;
22. Identify constituent of atoms
23. Classify different types of energies
24. Recognize the scientific basis of solar energy
25. Identify the basis of radioactivity
26. Able to describe the main viewpoint of pro and con about nuclear energy
27. Take the midterm
28. Recognize social and economical impact of solar and nuclear energy
29. SPRING BREAK
30. Identify components of electronics
31. Analyze impact of discoveries in electronics on quality of life
32. Recognize basic aspect of information technology
33. Recognize working principles behind some modern medical instruments

Proctored Exam Policy

There are no proctored or on-campus exams.

COURSE DETAIL

Course Communication

Communication in this course will take place via **messages**.

The message feature is a private, internal Blackboard only communication system. Users must log on to the blackboard system to send/receive/read messages. There are no notifications in Blackboard to inform users when a new message has been received; therefore, it is recommended that students check their messages routinely to ensure up-to-date communication.

This is the best method to communicate with your instructor privately.

LiveChat: It will be used during the online office hours.

Discussion Forums

Keep in mind that your discussion forum postings will likely be seen by other members of the course. Care should be taken when determining what to post.

Discussion forums will be used for introductions, class discussions and other postings of general interest that are directly related to the course.

Using the Introduce Yourself forum in the Discussion Board page of the course, introduce yourself to the class. This post will earn you 2 extra credit points. Due by Sunday, January 29th at 11:59PM.

Assessments

In order to mitigate any issues with your computer and online assessments, it is very important that you take the "Practice Quiz" from each computer you will be using to take your graded quizzes and exams. It is your responsibility to make sure your computer meets the minimum [hardware requirements](#).

Assessments in this course are not compatible with mobile devices and should not be taken through a mobile phone or a tablet. If you need further assistance please contact [FIU Online Support Services](#).

Assessment Expectations:

- Global Awareness Test Due January 29th 11:59 PM
- Midterm: From February 27th at 12:00AM to March 3rd at 11:59PM
- Final: From May 1st at 12:00AM to May 5th at 11:59PM

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Please note that the following information only applies if your course requires the use of the Respondus LockDown Browser to take assessments.

- Review the [Respondus LockDown Browser Instructions](#) on how to install, access your assessments and view your grades.
- After installing the browser, please take the Practice Quiz to familiarize yourself with the testing environment and to ensure that you have downloaded the Respondus Lockdown Browser correctly.

Assignments

There will be 13 homework assignments accessible from the Assignment Dropbox page. They will be due on Sundays by 11:59PM, check the course calendar below for dates.

Please note that the following information only applies if your course requires the use of Turnitin to submit your assignments.

- Review the detailed [Turnitin Instructions](#) on how to submit your assignments and how to review the Grademark comments (feedback) from your professor.

Adobe Connect Pro Meeting

Adobe Connect is an online meeting room where you can interact with your professor and fellow students by sharing screens, sharing files, chatting, broadcasting live audio, and taking part in other interactive online activities. We will be utilizing this tool to conduct office hours

Meetings will be available on the following dates: **By Appointment Only**

Requirements for using Adobe Connect:

- Disable any window pop-up blocker.
- [Adobe Flash Player](#) is required to successfully run your Adobe Connect meeting. You can [test your computer](#) to make sure your computer and network connections are properly configured to provide you with the best possible Adobe Connect meeting experience.
- Use of a combination [headset and microphone](#) with USB connection is recommended to ensure quality sound and reduce technical difficulties.

Reference [Adobe Connect \(Tutorials & Help\)](#) to learn about the tool, how to access your meeting rooms and recordings.

Grading

Course Requirements	Weight
Midterm	30%
Final Exam	40%
Homework	30%
Total	100%

*There will be 2 extra points available if you write an introduction in the discussion board

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Letter Grade	Range	Letter Grade	Range	Letter Grade	Range
A	95 or above	B	83 - 86	C	70 - 76
A-	90-94	B	80 - 82	D	60 - 69
B+	87-89	C+	77 - 79	F	59 or less

Exams

In order to mitigate any issues with your computer and online assessments, it is very important that you take the "Practice Quiz" from each computer you will be using to take your graded quizzes and exams. It is your responsibility to make sure your computer meets the minimum [hardware requirements](#).

Assessments in this course are not compatible with mobile devices and should not be taken through a mobile phone or a tablet. If you need further assistance please contact [FIU Online Support Services](#). The Respondus Lockdown Browser will be required to access all exams.

- Review the [Respondus LockDown Browser Instructions](#) on how to install, access your assessments and view your grades.
- After installing the browser, please take the Practice Quiz to familiarize yourself with the testing environment and to ensure that you have downloaded the Respondus Lockdown Browser correctly.

There will be an ungraded diagnostic exam, one Midterm Exam and one Final Exam. All exams will be held online. Exams will be due on Fridays by 11:55PM, check the course calendar below for dates.

COURSE CALENDAR

Module Weekly Schedule

WEEK	CHAPTERS	HOMEWORK
Week 1 January 9 - 15	Introduction to globalization and what it means to be a global citizen, and what does it take to acquire global thinking. Download and install the Respondus Lockdown Browser (instructions available in the assessments section above)	<ul style="list-style-type: none"> • Take Global Awareness test: Available Monday, January 9th until Sunday, January 29th at 11:59PM. • Introduce yourself discussion: Due Sunday, January 29th at 11:59PM.
Week 2 January 16 - 22	Scientific Notations and Units	<ul style="list-style-type: none"> • HW Mod #1 Essay: Due Sunday, January 22nd at 11:59PM. • HW Mod #2 Essay: Due Sunday, January 22nd

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WEEK	CHAPTERS	HOMEWORK
		<ul style="list-style-type: none"> at 11:59PM. • HW Mod #2 Quiz: Due Sunday, January 22nd at 11:59PM.
Week 3 January 23 - 29	Atoms. The Nature of Things	<ul style="list-style-type: none"> • HW Mod #3 Quiz: Due Sunday, January 29th at 11:59PM.
Week 4 January 30 - February 5	Introduction to energy	<ul style="list-style-type: none"> • HW Mod #4 Essay: Due Sunday, February 5th at 11:59PM. • HW Mod #4 Quiz: Due Sunday, February 5th at 11:59PM.
Week 5 February 6 - 12	Introduction and scientific basis of Solar Energy	<ul style="list-style-type: none"> • HW Mod #5 Quiz: Due Sunday, February 12th at 11:59PM.
Week 6 February 13 - 19	The nucleus and Radioactivity	<ul style="list-style-type: none"> • HW Mod #6 Quiz: Due Sunday, February 19th at 11:59PM.
Week 7 February 20 - 26	Introduction to nuclear energy and nuclear reactors	<ul style="list-style-type: none"> • HW Mod #7 Quiz: Due Sunday, February 26th at 11:59PM.
Week 8 February 27 - March 5	MIDTERM Review the Midterm, form discussion groups for peer evaluations of the exam.	<ul style="list-style-type: none"> • Midterm Exam: Available Monday, February 27th at 12:00AM to Friday, March 3rd at 11:59PM.
Week 9 March 6 - 12	Social and economical aspects of solar and nuclear energy and its impact on quality of life around the world.	<ul style="list-style-type: none"> • HW Mod #8 Quiz: Due Sunday, March 12th at 11:59PM.
Week 10 March 13 - 19	SPRING BREAK	
Week 11 March 20	Introduction to Electronics	<ul style="list-style-type: none"> • HW Mod #9 Quiz: Due Sunday, March 26th at 11:59PM.

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WEEK	CHAPTERS	HOMEWORK
- 26	Review and summarize the advances in electronics and its impact on the quality of life across the globe and its contribution to globalization.	
Week 12 March 27 - April 2	Social and economical aspects of the discoveries in electronics and its impact on quality of life around the world.	<ul style="list-style-type: none"> • HW Mod #10 Quiz: Due Sunday, April 2nd at 11:59PM.
Week 13 April 3 - 9	Information Technology	<ul style="list-style-type: none"> • HW Mod #11 Essay: Due Sunday, April 9th at 11:59PM.
Week 14 April 10 - 16	Global Perspective of Globalization Part 1	<ul style="list-style-type: none"> • Global Perspective on Globalization Research • HW Mod #12 Quiz: Due Sunday, April 16th at 11:59PM.
Week 15 April 17 - 23	Global Perspective of Globalization Part 2	<ul style="list-style-type: none"> • Global Perspective on Globalization Outline: Due Sunday, April 23rd at 11:59PM.
Week 16 April 24 - 29	Review and Further Discussion.	<ul style="list-style-type: none"> • Course review, evaluation, and suggestions. • Lesson 14 Bonus Assignment : Due Sunday, April 30th at 11:59PM. • Re-take the global awareness test: Due Sunday, April 30th at 11:59PM.
Week 17 May 1 - 7	FINAL EXAM	<ul style="list-style-type: none"> • Final Exam: Available Monday, May 1st at 12:00AM to Friday, May 5th at 11:59PM. • HW Mod #13 Evaluations: Due Sunday, May 7th at 11:59PM.

