NSC 131 - Contemporary Science
Winter, 2016

Instructor: Julie Kemarly-Dowland
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Lecture: M/W 1:00-2:23 pm
Lab: (section 02) M 2:30-4:20 pm
Lab: (section 03) W 2:30-4:20 pm

GENERAL INFORMATION:
NSC 131 is a course designed to introduce students to the nature of science as a process. The course presents an integrated approach to the various sciences from an origins perspective. Particular topics from various fields of science are covered with an emphasis on critical thinking and evaluating evidence to examine theories. The interrelationships of the sciences are stressed, as is the relationship of science and technology. The course goals include:

1. Understanding how science works as a process, and applying the same critical thinking skills used to evaluate evidence to everyday situations
2. Becoming more scientifically literate, especially concerning contemporary issues
3. Obtaining a working knowledge of measurement techniques, the metric system, and construction and interpretation of graphs, diagrams and tables
4. Examining the interrelatedness of the sciences, and the relationship of scientific investigation and social values

This course addresses the following JCC Associate Degree Outcomes (ADO's):

ADO4 scientific reasoning, as in designing scientific experiments, developing informed opinions on contemporary scientific issues, and analyzing evidence supporting the major theories of origin in science

ADO7 critical thinking, as articulating and analyzing evidence for the major theories of origin in science

Texts:
Conceptual Integrated Science Hewitt Lyons Suchocki Yeh ISBN# 1-323-19274-3 (customized edition for JCC)
Lab Manual – available at bookstore
Course Pack – available at bookstore (not required by my sections)
Calculator – Cell phones and other electronic devices may not be used on quizzes or exams, and a calculator will be necessary many weeks in lab

How to read a textbook:

Plan on dealing with each chapter 4 times.

First reading: Read the chapter objectives and skim the titles and subtitles. Repeat prior to the 2nd, 3rd and 4th readings.

Second reading: (limit yourself to 20 minutes per section) Begin to carefully read each section. Take notes as you read. If there is a box or vignette skip it for now. If there is a reference to a figure, pause at the reference, find the figure and study it by reading the text underneath the figure. When you have a grasp of the figure, return to the text. If you are a kinesthetic learner, you may wish to answer the review exercises in place of reading.

Third reading: Skim the text, this time take time to read anything in boxes or vignettes. Enjoy this time through. Allow yourself to be interested.

Fourth reading (prior to the test): Focus mainly on the summary. Anything that doesn't make sense in your summary, return to the text for further understanding. For visual learners, you may benefit more at this step by studying the figures. Tables are also a great way to read in a summary fashion.

Exams and Grading:

There will be five exams given in lecture. The lecture portion of the class will be worth 75% of your grade (lab = 25%). In computing the final lecture grade, points will be totaled from the following (subject to change):

Exams	300 pts. (4 exams, drop worst score)
Final exam	100 pts. (this exam **cannot be dropped)**
Class assignments and homework	~50 pts.
Lab	150 pts.
Total Points Possible	600 pts.

Exam Format - is similar for all five exams, although the last exam may include cumulative questions. Exams are a mixture of fill-in, multiple choice, problem solving, and essay questions. Exams are designed to take one hour - students arriving late will NOT be given extra time. If you anticipate requiring more than an hour, please see me ahead of time about starting exams early if possible.

Grading Scale - Final grades for the lecture and laboratory sections combined will be assigned based on the percentage of possible points earned as shown below:

Total % of points	Grade	Total % of points	Grade
92 - 100	4.0	70 - 77	2.0
88 - 91	3.5	68 - 69	1.5
82 - 87	3.0	62 - 67	1.0
78 - 81	2.5	58 - 61	0.5

Make-Up Exams - **NO MAKE-UP EXAMS WILL BE GIVEN**. An exam (other than the final exam) missed due to illness or any emergency will be treated as the dropped score. A subsequent missed exam, or missing the final exam, will count as a zero. Exceptions to this policy are made only with a doctor's excuse and at my discretion. In the case of an unusual personal emergency such as a death, get a message to me through my email.

Plagiarism and Cheating - Be sure that all homework and assignments are your own work. Copying someone else's work is plagiarism, and plagiarized work will **not be accepted**. This includes lab work, even if you work on the lab with other people. The work you turn in will be your own. Evidence of plagiarism or cheating on any exam or assignment will result in a "0" score for that assignment and notification of the Academic Dean - please see the attached JCC Academic Honesty Policy.

Instructor Absence/School Closing – If I am not able to attend class, a notice will be posted outside our room and, if possible, I will send out a mass email. If JCC is closed, announcements are made on local radio stations. With the exception of these two situations, ASSUME WE HAVE CLASS.

Student Responsibilities:

Attendance - I expect that you will do your best to attend every class. Because testing is primarily from lectures, missing class makes it very hard to do well.

Homework - If you miss class, it is your responsibility to find out if homework is due on the day you return. Assignments cannot be made up. A hardcopy of homework is required. Do NOT email me your work! It isn't my responsibility to print it for you! It also isn't my responsibility to staple it for you!

Arrive on time - Arriving late on a regular basis will harm your grade, as you will lose points on homework, and be uninformed of class announcements and assignments.

Contribute to a courteous learning environment - Anyone who interferes with the learning of others will be asked to leave class. This includes talking while I am talking or while another student has the floor, or being disruptive or disrespectful to others.

Study - This is a difficult course that will take significant study time outside of class. You will need to use the text, review notes and do study questions to prep for exams.

Seek Help - as soon as possible if you are having difficulty in the course. Come to see me, ask me for the name of a tutor, and/or attend study groups

Electronics – Laptops, cell phones, ipods and tablets are not to be out at all during lecture or lab. You must be prepared to devote time to this class and your instructor. I cannot teach you if your attention is elsewhere. This policy will stay in place all semester unless you have prior approval by me.

Extra Credit - is not given in the course. Focus your time and energy on studying for course assignments, lab quizzes and lecture exams.

Course Help and Special Needs - if you have special needs that I should be aware of in order to help you to best learn course material, please let me know as soon as possible. Students requiring special assistance (including those affected by the Americans With Disabilities Act) should contact the Center for Student Success in Bert Walker Hall, Room 123, 796-8415. Tutoring services are free at JCC - if at any point in the course you feel that you would benefit from a tutor, contact the Center.

JetNet Resources – many course materials can be accessed through the JetNet course management system. This is the way you will be able to view your grades, announcements, screencasts, animations, etc. You are expected to use JetNet to help you track assignments and due dates.

Key Assignments – there are three assignments in the course that are particularly important assessments of student learning. They are the Half-Life lab, the Group Experiments project, and the Hubble and Darwin comparative essay. Keep careful track of due dates for these assignments, as they are worth substantial points.

Academic Honesty Policy

Academic honesty is expected of all students. It is the ethical behavior that includes producing their own work and not representing others' work as their own, either by plagiarism, by cheating, or by helping others to do so.

Plagiarism is the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Using data, quotations, or paraphrases from other sources without adequate documentation
- Submitting others' work as your own
- Exhibiting other behaviors generally considered unethical

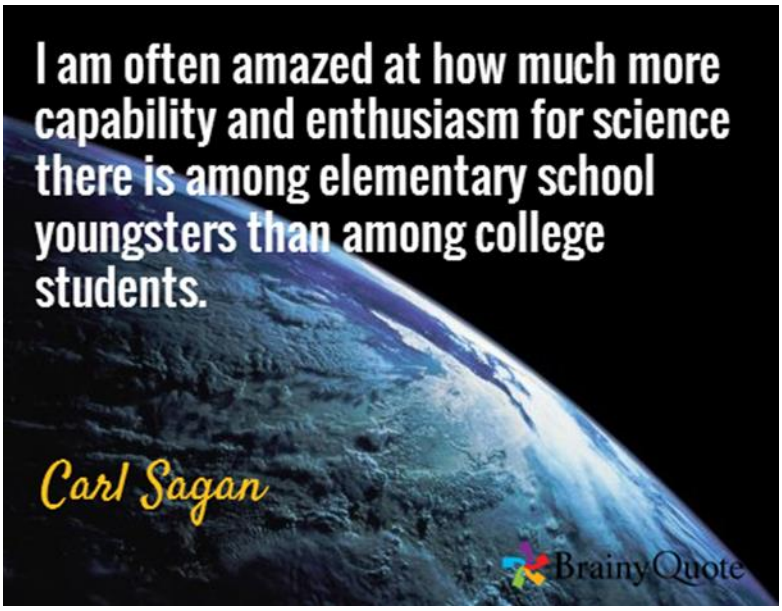
Cheating means obtaining answers/material from an outside source without authorization.
Cheating includes, but is not limited to:

- Plagiarizing in all forms
- Using notes/books without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical

Collaboration
While JCC encourages students to collaborate in study groups, work teams, and with lab partners, each student should take responsibility for accurately representing his/her own contribution.

Consequences/Procedures
A faculty member who suspects a student of academic dishonesty may penalize the student by taking appropriate action up to and including assigning a failing grade for the paper, project, report, exam or the course itself. Instructors should document instances of academic dishonesty in writing to the Dean of Faculty.

Student Appeal Process
In the event of a dispute, both students and faculty should follow the Conflict Resolution Policy.
The policy is presented in the Student Rights and Responsibilities section of the student handbook.



NSC 131 - Course Calendar

(Dates Approximate - Subject To Change)

Week of:	Topic	Reading
1/18	Nature of Science (Lecture 1)	Chapter 1
1/25	Scientific Measurement (Lecture 2) Atomic Structure (Lecture 3)	Chapter 3.2 (temp) Chapter 5.1-5.4
2/1	Atomic Structure (Lecture 3) Film	Chapter 5.1-5.4
2/8	**EXAM I (lectures 1, 2 and 3)** Radioactivity/Nuclear Decay (Lec. 4)	Chapter 6.1-6.3
2/15	Fission (Lecture 5) Nuclear Power Plants (Lecture 5)	Chapter 6.4-6.5
2/22	**EXAM II (lectures 4 and 5)** Climate Change (Lecture 7)	Chapter 10, p. 275-289
2/29	**Spring Break**	
3/7	Climate Change (Lecture 7) Climate Change video	
3/14	Wave Properties (Lecture 6) Doppler Effect/Spectroscopy (Lecture 8)	Chapter 4 Chapter 4.13
3/21	**EXAM III (lectures 6, 7 and 8)** The Expanding Universe (Lecture 9)	Chapter 11.7
3/28	Big Bang Theory (Lecture 9) Big Bang videos	Chapter 11.7
4/4	The Solar System (Lecture 10) Life and Death of Stars (Lecture 10)	Chapter 11.1-11.4
4/11	**EXAM IV (lectures 9 and 10)** Seismic Waves/Geology (lecture 11)	Chapter 9
4/18	Plate Tectonics (Lecture 11)	Chapter 10.1-10.3
4/25	Evolutionary Theory (Lecture 12)	Chapter 8
5/2 **5/4**	Evolution video **Exam V (lectures 11 and 12)**	**Hubble/Darwin final essay due**
Be prepared to lecture after exams if time remains. This schedule may change if I get behind OR ahead! Exam dates may also change if that occurs. It is your responsibility to keep informed of these changes by attending class.		

Other Important Dates	
9/15/15	First participation grade on Eservices – Check this!
9/17/15	Refund/Drop With No W
11/6/15	Mid-Term grades posted on E-Services
12/6/15	Last Day To Withdraw
12/21/15	Last Day of Classes

I have read the NSC 131 course information packet (course information, course calendar and academic honesty policy). I understand the information they contain. However, I would like public/private clarification (circle one) on the items I have described below:

Print Name _____

Signature _____

The return of this sheet is Required. It is to be turned in by January 20, 2016.

By signing this form, I am agreeing to the no late assignment policy and I will not ask for extensions. If I do not adhere to the instructions for any assignment, regardless of whether or not those instructions were written or verbal, I accept that points will be deducted. I also agree that if I miss a lab quiz or test they become my dropped grade. If I miss a second I will earn a zero.