BSC 103: Biology and Society

Where is lecture?

Location: Walker Science 137
Monday, Wednesdays, Friday 1:00-1:50 pm
Text: Discovering Biology, 4th edition by Cain and Yoon

Who is my instructor and how do I reach him?

Donald Yee, Ph.D.
Contact information
    donald.yee@usm.edu
    phone: 266-4927
    Office: WSB 136
    Office Hours: MW, 3:15 pm - 4:15 pm
    http://ocean.otr.usm.edu/~w777157/index.html
    Follow the “Courses” link to access BSC 103 content

NOTE: I am not on campus Tuesday or Thursday

What’s this class about?

BSC 103: Biology and Society is an introductory course whose lectures are designed to acquaint the student with the scientific method and the basic concepts of biology. Because it is a course designed for non-majors, special emphasis is placed on biological concepts relevant for your lives (both current and future). These concepts include evolution, biotechnology, disease, and environmental biology. My hope is that you will apply this knowledge to better your everyday life and environment.

What are the goals of this course?

BSC 103 is part of the General Education Curriculum (GEC) of the University. As a consequence, the course fulfills the following GEC Student Learning Outcomes:

Students will:
- demonstrate the ability to develop and focus on one topic in speaking and writing assignments and present ideas in an organized, logical, and coherent form.
- demonstrate the ability to use Standard English grammar, punctuation, spelling, and usage.
- have a good understanding of the scientific method.
- have good knowledge of the basic concepts in the Biological sciences.
- have a good understanding of the current areas of concerns or emphasis within at least one science discipline.
- be able to interpret scientific data and reach a plausible conclusion.
- have a good understanding of the techniques used in science.

A principal aim of this course is to expose you to new idea and concepts and to allow you to have a better understanding of your place in the Universe, as a Unique, Intelligent, Organism.
Do I have to come to class?
Although I won’t always be taking attendance, it is in your best interest to attend all lectures. As adults, it is up to you to decide when to attend class, but when you do please minimize your disruptions when arriving and leaving. PowerPoint lecture outlines will be posted on-line (see below) although some content will not, so there is a great advantage to coming to class. Also, we will be using Clickers as an in-class response tool, and you will receive some credit for those responses.

What do I do with my technology?
Please turn off all cell phones, pagers, and MP3 devices during lecture. Feel free to use your laptop to take notes, but please don’t web surf or engage in other non-course related activities during class. Students who use their laptops to engage in non-course related activities will be asked to leave.

What’s the drop policy?
Please be advised that I will not approve permission to drop this course after the designated ‘last day to drop’ unless extenuating circumstances justify my doing so. A failing grade or a decision that the course is too difficult does not represent extenuating circumstances.

When can I drop?
January 31st: Last day to drop and receive 100% financial refund
February 28th: Last day to drop full-semester classes without academic penalty

Can I cheat?
My view of cheating:
1. Don’t
2. See 1

What does USM say about cheating?
"When cheating is discovered, the faculty member may give the student an F on the work involved or in the course. If further disciplinary action is deemed appropriate, the student should be reported to the Dean of Students. In addition to being a violation of academic honesty, cheating violates the Code of Student Conduct and may be grounds for probation, suspension, or expulsion. Students on disciplinary suspension may not enroll in any courses offered by the University of Southern Mississippi."

Can you give me some examples of cheating?
- You and a friend work on an assignment together and turn in identical copies of the work. Problem: Just because you may be allowed to work together, your work should still reflect your effort, thoughts, ideas, and opinions. Thus, all assignments should be in your own words.
- You turn in a copy of an assignment from a previous semester. Problem: Although you might have access to an “old” version of an assignment, your work should reflect your effort, thoughts, ideas, and opinions.
- You come to an exam unprepared, so you decide to “help yourself” to the answers you can see on someone else’s exam. Problem: This one is obvious (hopefully).

What if I have disability concerns?
If a student has a disability that qualifies under the American with Disabilities Act and requests accommodations, he/she should contact the Office for Disabilities Accommodation (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies. Telephone: 601-266-5024; TTY: 601-266-6837
How am I evaluated in lecture?

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<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>Lecture Exams</td>
<td>250</td>
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<tr>
<td>Final Exam</td>
<td>125</td>
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<tr>
<td>Lecture points</td>
<td>50</td>
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<tr>
<td>Topics project</td>
<td>125</td>
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- Lecture Exams: 250 points (3 Exams at 125 points each, dropping the lowest score)
- Final Exam: 125 points (comprehensive, mandatory, will not be dropped)
- Lecture points: 50 points (Several short/brief quizzes or feedback questions will be given during the semester. These assignments/quizzes will not be announced prior to class)
- Topics project: 125 points. Each student will prepare a written paper on Topics in Biology. This project satisfies the General Education Core writing requirement. See attached sheet for more details.

Course grade (550 points available)*
A: 550-495
B: 494-440
C: 439-384
D: 383-328
F: < 328

*No extra credit is available.

Can I make up an exam?
Generally speaking I DO NOT allow make up exams, as I will drop the lowest of your 3 lecture exams automatically. Exceptions normally include unforeseen, documented, situations that occur 1-2 days prior to the exam. You MUST contact me (phone, e-mail) within 1 day of missing the exam (failure to do this will cause you to lose any make-up opportunities).

How should I prepare for the exams?
Take accurate notes in class and find time soon after lecture to make sure that you understand your notes, which might involve comparing your notes to the text and slides. Be advised that your lecture notes will be your most important study aid because test questions derive largely from lecture material, and some material will not be found within the assigned readings. Also, some material on the exams will not come from lecture and can only be found within your assigned readings. I suggest that you read the material assigned in the text before you come to lecture, that way you can anticipate information about subject matter not well understood.

Should I read the book?
This is up to you, although I will take lecture material from the assigned chapters. Most chapters are less than 20 pages, which could easily be read in one sitting.

How will I experience lecture?
Lectures will be delivered within a PowerPoint format, and an outline of the PowerPoint presentations will be available online. Videos presented in class will not appear elsewhere.

Will you provide a study guide for exams?
Yes, I plan to provide a study guide for the exams, although the nature of that guide is yet to be determined. Generally, I will post a study guide on the course website 1 week prior to the exam for you to download.

What is an iClicker?
USM has adopted the "iClicker©" brand response device. You may purchase your iClicker in the textbook store, from a number of online sources, or from another student. You only need to purchase one iClicker, which can be used in other courses at Southern Miss.

One student One iClicker policy. Each student should only ever have 1 iClicker with them at any time. I WILL CONFISCATE ALL iClickers from students who have more than one in class. We will begin using iClickers on 24th January so please bring them to class.
### BSC 103: M-W-F 1:00-1:50 pm

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics*</th>
<th>Activities</th>
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<tbody>
<tr>
<td>Jan. 19</td>
<td>Welcome &amp; Introduction</td>
<td>Buy iClicker, Text Book</td>
</tr>
<tr>
<td>21, 24*</td>
<td>Science</td>
<td>*Bring your iClicker</td>
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**Universe**

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<thead>
<tr>
<th>Date</th>
<th>Topics*</th>
<th>Activities</th>
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<tbody>
<tr>
<td>26, 28</td>
<td>Atoms &amp; Energy</td>
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<tr>
<td>31*, Feb. 2</td>
<td>Chemistry</td>
<td>*Last day to drop (no financial penalty)</td>
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<tr>
<td>4, 7</td>
<td>Environment</td>
<td></td>
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<tr>
<td>9, 11</td>
<td>Time &amp; Origins</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td><strong>Exam 1</strong></td>
<td>Bring Scantron</td>
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**Organism**

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<tr>
<th>Date</th>
<th>Topics*</th>
<th>Activities</th>
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<tbody>
<tr>
<td>16, 18</td>
<td>Evolution</td>
<td></td>
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<tr>
<td>21, 23</td>
<td>Commonality</td>
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<td>25</td>
<td>Plants</td>
<td></td>
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<tr>
<td>28*, Mar. 2</td>
<td>Basic Forms</td>
<td>*Last day to drop (no academic penalty)</td>
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<tr>
<td>4</td>
<td>Diversity</td>
<td></td>
</tr>
<tr>
<td>7, 9, 11</td>
<td><strong>Spring Break! -- No Class</strong></td>
<td></td>
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<tr>
<td>14*</td>
<td>Diversity</td>
<td>*Topics of Exploration due 1:00 pm</td>
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<tr>
<td>16</td>
<td><strong>Exam 2</strong></td>
<td>Bring Scantron</td>
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**Unique**

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>18, 21</td>
<td>Coexistence</td>
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<tr>
<td>23, 25</td>
<td>Variation &amp; Map</td>
<td></td>
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<tr>
<td>28, 30</td>
<td>Development</td>
<td></td>
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<tr>
<td>Apr. 1, 4</td>
<td>Sex &amp; Union</td>
<td></td>
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<tr>
<td>6, 8</td>
<td>Populations</td>
<td></td>
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<tr>
<td>11</td>
<td><strong>Exam 3</strong></td>
<td>Bring Scantron</td>
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**Individual**

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<tr>
<th>Date</th>
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<th>Activities</th>
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<tbody>
<tr>
<td>13, 15</td>
<td>Human Evolution</td>
<td></td>
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<tr>
<td>18, 20</td>
<td>Behavior</td>
<td></td>
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<tr>
<td>22, 25</td>
<td><strong>Easter Break! -- No Class</strong></td>
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<tr>
<td>27, 29</td>
<td>Memory &amp; Perception</td>
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<tr>
<td>May 2, 4</td>
<td>Mind &amp; Addiction</td>
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<tr>
<td>6*</td>
<td>Consciousness</td>
<td>*Topic of Relevance due 1:00 pm</td>
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<tr>
<td>May 10</td>
<td>Comprehensive Final Exam</td>
<td>10:45 am to 1:15 pm WSB 137 Bring Scantron</td>
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*subject to change
**Topics in Biology. What is relevant to you?**

**What is the purpose of this assignment?**

There will never be enough time in a course such as this to explore all biological concepts in an in-depth manner. As such, you will be expected to prepare a paper outlining one important biological concept that has relevance and interest to you. As part of this project, you will get practice in doing research, writing (see goals above), and ultimately in thinking about biological topics that likely will affect your life. This assignment will have two parts.

**What are the two parts of the paper?**

Part 1 (Topics of Exploration) is due halfway through the semester (March 14)
Part 2 (Topic of Relevance) is due at the end of the semester (May 6)

**What is each part about?**

Part 1 is meant to allow you to explore three paper topics that interest you. You will turn in a 1 page introduction to each topic. I will critique these for style, grammar, and content, and I will return them to you shortly. From these three, you will select one topic and prepare Part 2.

Part 2 is an exploration of one topic in detail. This will allow you to do a much more detailed examination of the topic that you find most interesting.

**How long is this paper?**

Part 1 is 5 pages (Title page + 3 Introductions + References). NOTE: Turning in MORE pages will COST you points!

Part 2 minimally will be 9 pages. Excellent papers may be longer, although longer papers won’t necessarily help your grade.

**What should each part contain?**

Part 1. You will select three of the topics below and write a one-page introduction for each. Your introduction should contain definitions, historical background, major innovations or events, and current knowledge. This part should NOT contain any opinions, particular expert viewpoints, or your views. **For the Introductions, I just want the facts!**

Part 2. You will select one topic from Part 2 and write a more in depth paper. This paper will contain:

- Page 1. Title page
- Page 2. Introduction (corrected)
- Page 3-4. Positives (pros, benefits, expectations, supporting *scientific* evidence, etc.)
- Page 5-6. Negatives (cons, drawbacks, problems, supporting *scientific* evidence, etc.)
- Page 7. Your views and opinions about the topic you have explored
- Page 8. References
- Page 9. Original, edited Introduction you got back from Part 1

Collect and organize your pages in a three tab report cover (NOT A THREE-RING BINDER)
You may decorate the cover if the mood strikes you. The papers and cover will NOT be returned.

**Where can I get references and how many do I need?**

Articles from professional online sources are acceptable, although blogs, personal websites, and other opinion websites are NOT. You will have no trouble finding articles in *non-scientific* media sources, whether newspapers or magazines (e.g., *New York Times, Newsweek, National Geographic*) and science magazines (e.g., *Scientific American, Science News, Discovery*). Articles from scientific journals (e.g.,...
Nature, American Journal of Botany) can be included, although these should represent the minority of sources, as most will be too specific or technical to be of much use to you. You should have 6 sources for the final paper (these will help support the Positives, the Negatives, although some may overlap including those used for the Introduction). Avoid the tendency of relying on a single article for any section, as other information is undoubtedly out there, and will make for a more complete paper!

What is the format for the paper?

Format is important and here are the rules.
- typed on computer-printed pages, black ink, white pages
- text will be double-spaced, at 12-point Times New Roman or Arial font, black ink only
- use whole pages and only use one side (right)
- place page numbers in the lower right of each page
- place your name and “BSC 103 Spring 2010” in the header of each page (except the title page)
- Title page should include your name, the semester and course name, and the title of your paper
  Part 1: Title should be “Topics of Exploration”
  Part 2: Title should be something you choose based on the actual topic you explore.
- Use parenthetical references within the text (Jones 1998) and full citations for the References (A. B. Jones, 2006, Hattiesburg American, pp. A6-A7; Smith, C. D. and E. F. Smith, 2005, Rolling Stone, p. 18); the reference section should be listed alphabetically

How will this assignment be graded?

Topics of Exploration (35 points)
3 complete Introductions (27 points)
Title page, References, format (5 points)
In a paper binder (NOT a 3-ring binder) (3 points)

Topic of Relevance (90 points)
Title page, Introduction (corrected), Original, edited Introduction from Part 1 (5 points)
References (10 points)
Positives (benefits, expectations, supporting scientific evidence, etc.) (25 points)
Negatives (drawbacks, problems, supporting scientific evidence, etc.) (25 points)
Thoughtfulness of your views and opinions about the topic (using Pros and Cons) (15 points)
Format, neatness (5 points)
Above and beyond (> 6 references, > 2 pgs for Pro or Con, etc.) (5 points)

⇒ Late papers decrease in value 20% per day!

What are the topics?* (Choose 3 for your Topics of Exploration)

- Cloning of biological organisms
- Knowing potential diseases based on DNA analysis
- Attempts to extend the human life span
- Use/overuse of antibiotics and antibacterial products
- Genetically modified organisms (GMOs)
- Use of animals for research into human disease
- Non-traditional medical practices (e.g., acupuncture, herbs)
- Male circumcision
- Reintroduction of threatened/endangered species (e.g., Wolves in Yellowstone)
- Use of DDT to control mosquitoes
- Biological basis of sexual orientation, gender identity
- Biofuels
- Processed and artificial foods (e.g., Splenda, high fructose corn syrup)
- Searching for signs of alien life
- Designer babies (e.g., sex determination, selecting against certain traits)
- Human enhancement (e.g., plastic surgery, human growth hormones, Viagra)
- Medical applications of stem cells (fetal and adult)
- Creating life from scratch

* This are the only acceptable topics at this time. If you have questions please contact me.