Division of Arts and Sciences
Department Biology
Course Syllabus

COURSE TITLE  Environmental Biology
COURSE NUMBER  PCB 2030
PREREQUISITES  None
CRN  30225
CREDIT HOURS  3.0
CONTACT HOURS  45

CLASS MEETING TIMES  Online course May 12 - June 22, 2014: no live meeting times.
CLASS METHOD  This course is designed as an online course and therefore there are no on-campus meeting dates required. A student may access the course on the first day of class at: http://online.fkcc.edu. If the student has difficulty in logging in to the course or the student does not see the course listed, contact the Office of Distance Learning helpline at 305-809-3177 or send e-mail to D2lhelp@fkcc.edu for assistance.

INSTRUCTOR  Dr. Bill Irwin
william.irwin@fkcc.edu
Office: Key West Campus C-209
Office phone: 305-809-3129

OFFICE HOURS  As posted in the announcements area on the course D2L site

COURSE DESCRIPTION  This course emphasizes man's relationship to the environment and all other living organisms. Included are population dynamics, ecosystems, evolution, and pollution. These principles are used to provide an understanding of environmental management and resource conservation.

COURSE OBJECTIVES  By the end of this course, students should understand:

• The scientific method and its limitations
• The principle of sustainability
• Thermodynamic principles and how they relate to energy usage on planet Earth
• Biotic and abiotic factors that affect organisms in various ecosystems
• How random chance and natural selection produce biological evolution
• How natural materials move through biogeochemical cycles, but synthetics do not
• Anthropogenic impacts on the biosphere, with a focus on global climate change and chemical pollution
• How environmental problems threaten human health and security
• The factors that lead to human population changes and the subsequent effects on ecosystem health
• The conflicts between our current economic system and the value of ecosystem services

By the end of this course, students should be able to:

• Assess environmental issues through sound critical thinking
• Describe their personal environmental ethics
• Differentiate green-washing from truly “green” products and processes
• Formulate reasonable solutions to environmental problems
• Assess whether human activities are sustainable or unsustainable
• Improve their quality of life, while minimizing their impact on the biosphere
REQUIRED MATERIALS: Environmental Science: Toward a Sustainable Future Plus MasteringEnvironmentalScience with eText -- Access Card Package, 12/e

PUBLISHER: Benjamin Cummings
AUTHORS: Richard T. Wright and Dorothy F. Boorse
ISBN: 9780321811295

REQUIRED ONLINE ACCESS: When students receive their Mastering Environmental Science (MES) registration code, they should register online and enter course code: CRN30225 to join this course. If students purchase a used textbook, they will need purchase an access code for MES directly at: http://www.masteringenvironmentalscience.com

Please note: The course schedule is subject to change to meet the needs of the course and its students. It is the responsibility of each student to stay current with the material via the D2L website.

### PROPOSED COURSE SCHEDULE

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Chapters</th>
<th>Discussions</th>
<th>Assignments</th>
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</thead>
<tbody>
<tr>
<td>Week 1</td>
<td><strong>Introduction to Environmental Science</strong>: Science and the Environment; Economics, Politics, and Public Policy</td>
<td>1, 2</td>
<td>1</td>
<td>MES 1</td>
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<tr>
<td>May 12-18</td>
<td><strong>Basic Biology and Ecology</strong>: Basic Needs of Living Things; Populations and Communities; Ecosystems- Energy, Patterns, and Disturbance; Wild Species and Biodiversity; The Use and Restoration of Ecosystems</td>
<td>3-7</td>
<td>2 &amp; 3</td>
<td>MES 2 &amp; 3 Exam #1</td>
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<tr>
<td>Week 2</td>
<td><strong>Human Population, Development and Resources</strong>: The Human Population; Population and Development; Water: Hydrologic Cycle and Human Use; Soil: The Foundation for Land Ecosystems; The Production and Distribution of Food; Pests and Pest Control</td>
<td>8-13</td>
<td>4 &amp; 5</td>
<td>MES 4 &amp; 5</td>
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<tr>
<td>May 19-25</td>
<td><strong>Energy Supply and Demand</strong>: Energy from Fossil Fuels; Nuclear Power; Renewable Energy</td>
<td>14-16</td>
<td>6 &amp; 7</td>
<td>MES 6 &amp; 7 Exam #2</td>
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<tr>
<td>Week 3</td>
<td><strong>Pollution</strong>: Environmental Hazards and Human Health; Global Climate Change; Atmospheric Pollution; Water Pollution and Its Prevention; Municipal Solid Waste: Disposal and Recovery; Hazardous Chemicals: Pollution and Prevention</td>
<td>17-22</td>
<td>8 &amp; 9</td>
<td>MES 8 &amp; 9</td>
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<td>May 26-June 1</td>
<td><strong>Stewardship</strong>: Sustainable Communities and Lifestyles</td>
<td>23</td>
<td>10 &amp; 11</td>
<td>MES 10 &amp; 11 Exam #3</td>
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<td>Week 4</td>
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<td>June 2-8</td>
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<td>Week 5</td>
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<td>June 9-15</td>
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<td>Week 6</td>
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<td>June 16-22</td>
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### STUDENT EVALUATION AND COURSE POLICIES

<table>
<thead>
<tr>
<th>STUDENT GRADE DETERMINATION</th>
<th>FKCC GRADING SCALE</th>
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<tbody>
<tr>
<td>60 % 3 Exams @ 100 points each = 300</td>
<td>90% or above A</td>
</tr>
<tr>
<td>20 % 11 MES Assignments @ 10 points each (lowest dropped) = 100</td>
<td>80%-89% B</td>
</tr>
<tr>
<td>20 % 11 Discussion Forums @ 10 points (lowest dropped) = 100</td>
<td>70%-79% C</td>
</tr>
<tr>
<td>100 % Total Grade (500 total points)</td>
<td>60%-69% D</td>
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<td></td>
<td>Below 60% F</td>
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Exam Policy:
- Each exam will be given online.
- Exams are "open book" meaning you may use your course textbook and notes but you must not receive help from any other individual during the tests. You will not have sufficient time during the exams to look up the answers to all the questions so you should study as if you were taking paper tests in class without materials to help you.
- Makeup exams may be offered to students with emergencies, but only if they can provide acceptable documentation of the emergency (e.g. hospital admits slip, letters from parole officer, etc.). The instructor reserves the right to change the format of any makeup exams (e.g. from multiple choice to essay questions).
- The final exam cannot be made up for any reason.
**Communications:** The online format of this class puts a premium on communications. The prime responsibility for timely communications rests with the student. This course will utilize the following methods:

**Discussion Forums:** Most weeks under the discussion tab, there will be a question to which the students are to post a response during the week. The student must click on the “respond” button immediately after the question. The student is to make appropriate comments; for maximum credit the student is to post an original response to the question and to respond to at least two other students' responses that week. Each student should also check to see who has responded to their comments and respond to those posts if it is appropriate to do so. These posts should also add to the discussion with content and references – they should include more than “I agree” or “I disagree.” The student is expected to provide quality insight citing and documenting references in order to demonstrate an understanding of the weekly topic and provide original thought in the posts. Cutting and pasting from the text, websites, or providing a response with limited substance will receive a significantly reduced grade. As with all activities in this class, quality counts and the postings need to add value to the discussion.

For the purposes of this class, a substantial online posting should...

- provide a good explanation of a concept or concepts related to the material discussed in the forum, give a good example of how a concept can be applied or provide an insightful response to a previous post.
- be factually correct. The post should help everyone learn the material.
- be at least 150 words in length. Though this is somewhat arbitrary, the idea here is that the message needs to be quantitatively as well as qualitatively substantial. Messages that do not meet this length requirement may not earn full credit.
- use acceptable spelling and grammar. Although this is not a writing class, this is College. Students should get into the habit of writing complete sentences that are grammatically correct. Take advantage of the spell check feature in D2L.
- not plagiarize from any source (internet, textbook, etc.) as the body of the post. Concepts should be expressed in the student’s own words and references should be cited. Students should summarize and rephrase the ideas in their own words rather than "cutting and pasting" text; this is necessary for proper understanding and synthesis of ideas - in other words, it really helps us to LEARN what we're reading and discussing.

To earn 100% on the discussion portion of the class participation grade, each student must do the following by the dates published in the Course Calendar:

- Post one substantial message in each discussion forum at any time during the week in which that forum is scheduled. (If two forums are scheduled during the same week, then one message must be posted in each forum.) Post early and often to give other participants time to respond in a true DISCUSSION over the week. It's also often easiest to post early in the week because some topics may become "saturated" and it becomes more difficult to contribute anything new as the week progresses!
- Respond with substantial comments to two other students' posts to continue the discussion that they've created.
- Respond to responses to individual posts as appropriate.

Other key points:

- Only messages that meet all of the requirements of a substantial post listed above will earn full credit for participation.
- It is acceptable (and encouraged!) for more than one student to respond to the same message. The best way to be sure you understand a topic is to try to explain it to someone else.
- Please use the discussion forums to ask all of the questions you have about the class material. Everyone should ask questions to contribute to the learning process.
- Most questions about class policies and subject matter should be posted in the appropriate discussion forum area to allow the entire class to benefit from the question and the answer.
**Announcements:** Occasionally, time-sensitive announcements such as changes in due dates, exam information, etc. will be posted in the Announcements section. The student should log on to D2L 3-4 times each week (once per day is best but at least every other day is expected) to check for time-sensitive messages. The student is responsible for all information published here. In general, all participants should look through the Discussion Board and Announcements before posting a question because that same question may have already been asked and answered.

**Email:** Students should only use their official FKCC email address for class communication. Students are expected to check their FKCC email account regularly. The instructor will only respond to email messages to a student's official FKCC email address.

**What can the student expect from the instructor?**
The instructor will log into D2L and check for messages at least every other day and usually at least once per day (and often many times per day!). If a student has an urgent message for the instructor that does not pertain to the class in general it may be best to send that message via email (using his/her FKCC email account). If the instructor expects to be out of contact for more than a couple of days, a notice will be posted via the Announcement section. Important Note: If the instructor has not responded to a student email or voicemail message by the end of the day after the message was sent, the student should assume that the instructor did not receive it and leave another message. Electronic messaging systems aren't perfect!

**What can the instructor expect from the student?**
This course maintains an intense pace to cover all the material of a traditional full-semester course in just 6 weeks. Since there are no scheduled live lecture or discussion times, it is up to each student to schedule time to complete the readings, complete online homework assignments and participate in the online discussion forums. Many students are not successful in online courses because they expect the courses to be easier than traditional lecture courses (partly because the exams are "open book"). The truth is that students need to have good discipline in their study habits and be highly motivated to learn the material through personal study and online interaction in order to pass this course. The best advice for a student attempting an online course is to stay on track with the work and to keep in touch with the instructor via the discussion forums or email if they start to feel "lost." It is difficult for an instructor to help a student who is not actively participating in the course through online communication.

Note that by FKCC policy, an instructor may withdraw a student from a course at any time for "excessive absences." For the purposes of this course, "excessive absence" is defined as failure to fully complete any combination of three or more discussions, online assignments or exams by the due date.

**Logging Off From D2L:** In order to better serve our faculty and students, all D2L users should click the “Logout” link when completing online course work. By logging off instead of just closing the internet browser window, D2L server space is freed and system performance is optimized. Logging off will also more accurately record each student’s time logged into the course.

**Copyright Notice:** The materials and content provided in this course is intended only for registered Florida Keys Community College students who have paid their tuition and fees to attend this course. Materials that are affected include, but are not limited to, text, still images, audio recordings, video recordings, simulations, animations, diagrams, charts, and graphs. Every effort has been made to insure these materials are not disseminated to anyone beyond those who have legally registered for this course. Download, revision, or distribution of course material with anyone other than registered classmates and the instructor is strictly prohibited.

Students are expected to understand and follow all FKCC Policies found in the current Student Handbook.