

**FLORIDA KEYS COMMUNITY COLLEGE**  
**DIVISION OF ARTS AND SCIENCES**  
**DEPARTMENT OF NATURAL SCIENCES**  
**COURSE SYLLABUS**

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## **I. Course Information**

<b>COURSE NUMBER</b>	BSC 1010
<b>COURSE TITLE</b>	Principles of Biology I
<b>PREREQUISITES</b>	None
<b>COREQUISITES</b>	BSC 1010L
<b>CREDIT HOURS</b>	3.0
<b>CONTACT HOURS</b>	45

**II. Course Method** This is a traditional course, designed to meet face to face in D-109 on Mondays from 14:00 – 16:45 for the entire fall term (August 22 – December 10, 2011)

**III. Instructor** Dr. Bill Irwin  
[William.Irwin@fkcc.edu](mailto:William.Irwin@fkcc.edu)  
Office: C-223 (Office phone # 305-809-3129)  
Office Hours: TBA

**IV. Description** An overview of the structural, ultrastructural, chemical, genetic, developmental and physiological realms of living organisms.

**V. College-Level Competencies** Florida Keys Community College graduates who complete the core curriculum possess the knowledge, skills and values associated with college-educated individuals. Our graduates demonstrate mastery of competencies integrated within the academic disciplines, such as the ability to effectively communicate, seek creative solutions to problems, exhibit cultural awareness, and command basic technological skills.

1. **Communication:** Comprehend and articulate effectively – written and oral communication
2. **Critical thinking:** Demonstrate mastery of problem-solving skills in the discipline
3. **Diversity:** Interpret and evaluate societal and ethical issues, problems and values
4. **Technology:** Utilize technology effectively

## **VI. Course Calendar**

The Course Calendar provides the lecture schedule, assigned reading in the textbook and student assessments that comprise this course on a weekly basis. Pay close attention to the “Student Assessment” column, as it lists all exams and graded assignments with due dates: missing a class does not exempt you from assignments or exams. There are a total of 1000 points available in this course, but they are not evenly distributed by week. Please see the course policies below for more information.

**N.B.: The course schedule is subject to change to meet the needs of the course and its students. If you miss a class, it is your responsibility to obtain notes from a classmate and any assignments from me.**

Competency	Week	Learning Outcomes	Learning Activities	Student Assessments	Points
1, 2,4	Week 1: August 22	1. Understand the unifying themes of biology 2. Know the scientific method	Textbook Reading Chapter 1 Watch and discuss first movie (TBA)	<b>NOTE: MBs by midnight</b>	
1, 2,4	Week 2: August 29	1. Describe atoms, molecules and chemical bonding 2. Describe the unique properties of water and its importance to life	Textbook Reading Chapters 2, 3	*MB #1 <b>Due: September 11</b>	10
	Week 3: <b>Sept 5: NO CLASS</b>	<b>[Labor Day]</b>			
1, 2,4	Week 4: September 12	1. Understand why carbon is the building block of life 2. Describe the major classes of biomolecules	Textbook Reading Chapter 4, 5	MB #2 <b>Due: September 18</b>	10
1, 2,4	Week 5: September 19	1. Assessment of Chapters 1-5 2. Introduction to cells	Exam #1, Watch and discuss Movie (TBA)	<b>Exam #1 in class</b>	100
1, 2,4	Week 6: September 26	1. Describe the principal components of cells 2. Describe the cell membrane and its role in transport and cell-cell communication	Textbook Reading Chapters 6, 7	MB #3 <b>Due: October 2</b>	10
1, 2,4	Week 7: October 3	1. Describe inter- and extra- cell communication 2. Understand the cell cycle	Textbook Reading Chapters 11, 12	MB #4 <b>Due: October 9</b>	10
1, 2,4	Week 8: October 10	1. Describe cell metabolism 2. Describe the processes of cell respiration	Textbook Reading Chapters 8, 9	MB #5 <b>Due: October 16</b>	10
1, 2,4	Week 9: October 17	1. Describe the processes of photosynthesis 2. Compare respiration and photosynthesis	Textbook Reading Chapter 10, Review	MB #6 <b>Due: October 23</b>	10
1, 2,4	Week 10: October 24	1. Assessment of chapters 6-10 2. Describe meiosis and sexual reproduction	Textbook Reading Chapter 13 Exam #2	Exam #2 in class MB #7 <b>Due: October 30</b>	100 10
1, 2,4	Week 11: Oct 31	1. Describe Mendelian inheritance 2. Describe DNA and chromosome structure and function	Textbook Reading Chapters 14, 15	MB #8 <b>Due: November 6</b>	10
1, 2,4	Week 12: November 7	1. Describe DNA replication and mutations	Textbook Reading Chapter 16 Watch Movie and discuss #3 (TBA)	MB #9 <b>Due: November 13</b>	10
1, 2,4	Week 13: November 14	Understand gene regions and steps in gene expression	Textbook Reading Chapters 17, 18	MB #10 <b>Due: November 20</b>	10
1, 2,4	Week 14: November 21	1. Understand viruses and their significance and use	Textbook Reading Chapter 19 Watch and discuss movie #4 (TBA)	MB #11 <b>Due: November 27</b>	10
1, 2,4	Week 15: November 28	1. Describe genetic technologies 2. Describe the human genome	Textbook Reading Chapters 20, 21	MB #12 <b>Due: December 4</b>	10
1, 2,4	Week 16: December 5	Assessment of chapters 13-21	Exam #3	<b>Exam #3 in class</b>	100

\*MB = MasteringBiology. Students must purchase access (See VII. Materials section below for information) to masteringbiology.com in order to access student support materials and numbered homework assignments.

## VII. Materials

<b>REQUIRED TEXTBOOK</b> <i>(Choose print or e-text!)</i>	<i>Biology, 8<sup>th</sup> Edition.</i> Neil A. Campbell, Jane B. Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky and Robert B. Jackson.
<b>PUBLISHER</b>	Benjamin Cummings
<b>REQUIRED ONLINE ACCESS</b>	<a href="http://www.masteringbiology.com">http://www.masteringbiology.com</a> (course ID: F2011BSC10102)

**ISBN Print Textbook +  
Mastering Biology access**

978-0-32-154325-7

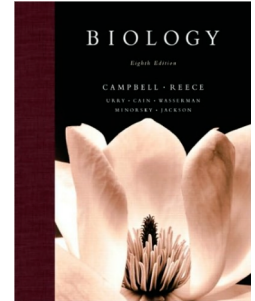
NOTE: This package includes the print version of our textbook and an access code card for our course website, which will both be shipped to you from the bookstore.

--OR--

**ISBN e-Text +  
Mastering Biology access**

978-0-32-163393-4

NOTE: This package is fully electronic and includes an access code card for our course website and for the full eText of our textbook. This is the most environmentally-friendly option and saves you some money too!



## VIII. FKCC Grading Scale

A:	90 - 100%
B:	80 - 90%
C:	70 - 80%
D:	60 - 70%
F:	Below 60%

## IX. Grade Determination & Course Policies

<b>25 %</b>	10 MasteringBiology Assignments @ 10 points each (2 lowest of 12 dropped)
<b>75 %</b>	3 Exams @ 100 points each
<b>100 %</b>	Final Grade (400 total points)

### Exams

- Exams are given at the start of class and must be completed during class within the time allotted.
- Makeup exams *may be* offered to students with emergencies, but only if they can provide acceptable documentation of the emergency (e.g., hospital admit slip, etc.) AND they contact the instructor *within 24 hours of the end of the emergency*. The instructor reserves the right to change the format of any makeup exams.

### Pop Quizzes

- Quizzes will be unannounced and cannot be made up.
- You will be allowed to use your own class notes and nothing else, as an aid to taking the quizzes.
- If you do not take notes in class, you should not expect to do well on the quizzes, so please TAKE NOTES!

### Homework

- MasteringBiology assignments are due by midnight on each due date (Sundays prior to Monday lectures). Do them early to prevent submission problems that may arise due to computer or technology issues..

## FKCC Policies

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### Withdrawal

- Students may withdraw without academic penalty from any course by the established deadline published in the College's calendar. This will result in a grade of 'W' for the course and will not count against the student's GPA.
- Students will be permitted a maximum of two withdrawals per course. Upon the third attempt, the student WILL NOT be permitted to withdraw in accordance with State of Florida regulations and will receive an earned grade for that course.
- It is the responsibility of the student wishing to withdraw from the course to do so by the date published in the College Academic Calendar. **For Fall 2011, the last day to withdraw and receive a "W" grade is November 7<sup>th</sup>.** Students who abandon the course or do not withdraw themselves by the published deadline are subject to receiving a grade of F.
- An instructor may withdraw a student from courses for excessive absences and/or non-attendance up to the 70% point in the semester.

### Academic Honesty & Plagiarism

- You are responsible for understanding and avoiding plagiarism (presentation of another person's work—in any format—as if it were your own). Plagiarism is a serious form of fraud and will not be tolerated. It is the student's responsibility to review the College's policy on Academic Honesty.
- Students are expected to respect and uphold the standards of honesty in submitting written work to instructors. **The first instance of academic dishonesty (including plagiarism) will earn a grade of zero on the assignment; a second instance of academic dishonesty will earn a final course grade of F and will be reported to the College.**
- Collaboration and discussion is encouraged in all course aspects *other than* completion of student assessments (exams, homework, projects). In order to assess individual student performance in the course, I must be able to see your work alone on your assignments. **If I receive copied student work, all students whose work matches will receive a zero for the assignment.**

### Special Needs

If you have any special needs or requirements pertaining to this course, please discuss them with the instructor early in the term. If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Office for Students with Disabilities at 305-809-3504 via email at: joanne.dinkel@fkcc.edu or the course instructor immediately. Reasonable efforts will be made to accommodate your special needs.

### Sexual Predators

Federal and State law requires a person designated as a "sexual predator or offender" to register with the Florida Department of Law Enforcement (FDLE). The FDLE then is required to notify the local law enforcement agency where the registrant resides, attends or is employed by an institution of higher learning. Information regarding sexual predators or offenders attending or employed by an institution of higher learning may be obtained from the local law enforcement agency with jurisdiction for the particular campus, by calling the FDLE hotline (1-888-FL-PREDATOR) or (1-888-357-7332), or by visiting the FDLE website at [www.fdle.state.fl.us/sexual\\_predators](http://www.fdle.state.fl.us/sexual_predators). If there are questions or concerns regarding personal safety, please contact the Campus Security Officer on your campus.

### 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.