Lab is a **separate class** from the lecture. The timing of lab and lecture topics **will not always align depending on schedules**. Even though they are less credit hours, **labs will require the same amount of study time**!

TENTATIVE SCHEDULE for

**BSC 1005L – Life Science Lab**

Summer B 2018

Course Reference #: 239446

**Day of Laboratory Topic Assignment**

Jun 27 Intro, Safety, Metric Exercise 1

Microscopes Exercise 2

Jul 2 Cells Exercise 3

Jul 4 **Holiday**

Jul 9 **Exam 1,** Mitosis Exercise 4

Water Pollution Set up Exercise 8

Jul 11 Meiosis Exercise 4

Karyotyping Exercise 5

Jul 16 Forensic Science Exercise 6

Tree of Life Exercise 7

Jul 18 **Exam 2**,

Jul 23 Predator Prey Experiment Exercise 9

Jul 25 Local Plants Exercise 10

Jul 30 Human Systems Exercise 11

Aug 1 Circulatory System Exercise 12

Water Pollution Exercise 8

Aug 6 **Exam 3**

**COURSE OBJECTIVES:**

* To know the safety and rules in laboratory set up.
* To master the metric system.
* To know how to operate microscope.
* To understand the structure and function of cells.
* To understand cellular division
* To understand chromosomes and karyotyping.
* To be aware of local native and invasive plants
* To understand how certain pressure affect evolution
* To understand how runoff effect local water quality
* To understand the structure and function of representative human systems.
* To understand the circulatory system and blood as well as associated diseases

**COURSE DESCRIPTION:** This lab course is designed for non-science majors. Students gain laboratory experiences in area of properties of life, the chemical basis for life, cell structure and function, cell reproduction and inheritance, representative human systems and plant structure and function.

**PREREQUISITE:** Students must score into college-level reading on placement test.

**CONTACT INFORMATION**:

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| **Instructor of Record, IOR:** |
|  |
| **Email:** |
| **Office:** |
| **Phone:** |

The **Instructor of Record** **(IOR)** for this course is listed above. The IOR is responsible for teaching the selection of experiments and exams developed and approved by Biology Department Faculty, approves all assignments, and assigns the student’s grade for the course. The IOR is to facilitate the performance of the assigned experiments within the laboratory setting and assists with the grading of assessments under the direction of the course instructor and other biology faculty. Any correspondence must include the **student’s name** and **course reference number**. The IOR will generally respond to the student within 2 business days *(note: failure to include* ***name*** *and* ***reference number*** *in initial correspondence, may result in delayed to no response)*.The IOR reports the grade the student earns over the course of the semester and will issue any incompletes (I) or withdrawals (W) that are needed.

**LAB MANUAL**: BSC1005L Life Science Laboratory Manual, 1st ed., IRSC

**LECTURE TEXT**: *Symbiosis,* Pearson Custom Library for the Biological Sciences

**Additional Resources Available:** [http://biology-irsc.weebly.com](http://biology-irsc.weebly.com/)

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| The **Miley** **Library** serves as IRSC's main library.  The library is an information place providing professional assistance, library books and media, and access to the library's electronic resources. There is an extensive online database system also available through IRSC’s website [www.irsc.edu](http://www.irsc.edu) |

**GRADES:** There will be three practical exams covering assigned materials. Grades for the

semester are based upon two exams: the average between the Exam 3, and the higher score from the first two exam grades (Exam 1 **OR** Exam 2 **+** Exam 3 **=** **#** / 200). No extra credit projects will be granted beyond the test assignments. \*\*\***Also see ATTENDANCE policy below that may affect the grade\*\*\***

The grades are assigned on the following basis:

A: 90 - 100 B: 80 - 89 C: 70 - 79 D: 60 - 69 F: below 60

The student’s test grades can be viewed at any time on Blackboard, thus the student has continual access to their current academic standing in the course. It is the student’s responsibility to monitor their grade and also to approach the instructor for academic support/suggestions if the student is not earning the grade they desire. **Instructor contact must be administered in a timely manner**, as last minute concerns cannot be addressed or remedied, nor can they positively impact final grades.

**\*\*\*No extra credit projects will be granted and there are no homework points for this course; your grade is entirely made up of the two highest 100 point tests.\*\*\***

W = student withdraw by Tues, Jul 10, 2018 I = incomplete for passing students only in EXTREME cases which *must be approved by the IOR*

If a student withdraws from the course, the student must email both the TLS and IOR. **The IOR will respond with a confirmatory email that the student has been withdrawn.** This is to minimize the number of Instructor Withdrawals (WI) that are requested after final grades are posted. Requests for Instructor Withdrawal (WI) after the student has taken the final exam will not be considered for students whom were failing prior to the final exam and did not speak with their TLS/IOR about possible solutions to pass the course.

**EXAMS:** Students are responsible for knowing their exact dates and times of their Exams based off the

schedule above. You will NOT be permitted late, even if it’s 30 seconds, so plan accordingly. This is to ensure all students have a fair and equal testing experience. Exams will be **timed** rotational station-based practicals in which the students will view parts of the experiments they conducted in the weeks prior and will be expected to answer questions pertaining to that specific lab. Like all lab class periods, the students will be physically required to participate by walking and standing at each station during the test. Due to increased number of students in the Biology program, you will NOT be able to attend another instructor’s lab for an Exam if you have missed yours.

**No Make-up dates are available for this course due to the allowance of dropping your lowest test score, regardless of the circumstances involving missing an Exam.**

**OPEN LAB POLICY:** Refer to General Lab Rules handout

**ATTENDANCE:** All students (including DUAL Enrollment students) are expected to be present in lab in order to accomplish the learning goals for the lab practical examinations. It is solely the students responsibility to sign into class in order to be counted present; TLS/IOR’s are not expected to remember students attendance nor will be held liable for a student failing to sign in. **Three percentage points (3%) will be taken off for EACH *lab class missed; absences will be assessed* at the end of the course.  Students will receive 1 free absence *per semester*.** For example, if you miss two lab classes duringthe semester and you ended up with an 80 average, then your final average would be a 77 and you would receive a C in the course.

If you happen to know you will be missing a lab class, contact your TLS/IOR immediately to discuss possible options to participate in another instructor’s lab so you will not miss that week’s experiment. You can find other lab times and locations at [http://biology-irsc.weebly.com.](http://biology-irsc.weebly.com/) It is the student’s responsibility to initiate finding a time and day that works with their schedule; the TLS/IOR is available to help facilitate once an appropriate lab time/date/day is selected by the student.

To effectively utilize lab time, preparation is required on the part of the student. The student should

read the assigned laboratory exercises **prior to class** to become familiar with details for lab BEFORE lab starts. (NOTE: The above schedule is only tentative and each student is responsible

for knowing his/her exact lab days.)

**LAB ATTIRE:** Appropriate attire is required for your protection. In keeping with Federal regulations, **students are required to wear flat closed-toe, close-heel shoes in laboratory**. The attire worn in the laboratory work setting should include full coverage of legs (long pants or skirt), shirt with sleeves (not low cut and no bare midriff), hair restraints for long hair, and no dangling jewelry. **If you do not come properly dressed for lab, you will NOT will allowed into class or permitted to enter to take your Exam which will result in a score of “0” (zero points) for that Exam. NO EXCEPTIONS.**

**ELECTRONIC DEVICES:** All electronic communication devices are prohibited during exams or quizzes. The use of cell phones is prohibited during class and must be set on *silent* or *off* during the class period.  Any student who uses a cell phone to make or answer a call, or send and/or read text messages or emails during class time may be asked to leave and considered absent for that class. Electronic devices may be used to take pictures of slides or models when permitted by the instructor.

**CHEATING:** Cheating of ANY kind **WILL NOT** be tolerated by this Department or the College. *Anyone caught cheating will automatically receive a minimum of a zero for that assignment/test.* Any further episodes will result in an F in the class, no withdrawal allowed. Anyone who witnesses this inexcusable behavior and does not report it is also considered to be guilty of improper conduct.

**MAKE-UP POLICY: None.** Students must take all Exams in the course reference number they are registered in, however they are allotted to drop Exam 1 **OR** Exam 2 to buffer any missed exams due to emergency. Exam 3 must be attended by the student and is not eligible to be dropped. If a student is unable to attend the scheduled exam, it will be counted as a zero. **No make-up unit exams will be given.** A student cannot make up an exam at a time other than their scheduled lab period. If a student misses the final exam, they must contact the instructor **within 24 hours of the schedule exam time** with a *verifiable emergency*. Only with an approved verifiable emergency via the IOR, *and only if they are currently passing the course*, will a student be available to receive an incomplete (I) for the course. If a student is not passing the course prior to the final exam, the missed final will count as a score of zero “0” as described above and will be used in calculations of the students final earned letter grade in the course.

**EXTRA CREDIT:** No extra credit is given.

**LEARNING OUTCOMES:** at the completion of the course, the student will be able to:

* Communicate major biological concepts and relate how these are connected within various areas of the biological and physical sciences in a laboratory setting.
* Apply critical thinking skills to provide the foundation for lifelong learning and career development.

**STUDENT ACCESSIBILITY SERVICES:** Indian River State College provides reasonable accommodations to students with documented disabilities through the Student Accessibility Services (SAS) Office. The rights of students with disabilities which pertain to post-secondary education are provided under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990. Students who wish to request an accommodation for a documented disability may contact Student Accessibility Services at 772-462-7808, 772-462-7782 or e-mail [accessibilityservices@irsc.edu](mailto:accessibilityservices@irsc.edu).

**NON-DISCRIMINATION AND NON-HARASSMENT POLICY:** Indian River State College (College) is committed to maintaining a fair and respectful employment and educational environment. In accordance with federal, state and local equal opportunity laws, Indian River State College prohibits discrimination on the basis of race, color, national origin, ethnicity, sex, religion, age, disability, sexual orientation, marital status, veteran status, or genetic information.