INDIAN RIVER STATE COLLEGE

COURSE SYLLABUS

Fall 17

|  |  |
| --- | --- |
| **COURSE TITLE:** | **COURSE NUMBER:** |
| Life Science Lab | BSC 1005L |

|  |
| --- |
| **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. |

|  |  |
| --- | --- |
| **Technical Lab Specialist, TLS:** | **Instructor of Record, IOR:** |
|  |  |
| **Email:** | **Email:** |
|  | **Office:** |
|  | **Phone:** |

**The Technical Lab Specialist (TLS)** or **Instructor of Record (IOR)** will facilitate the material, experiments, and exams developed and approved by Biology Department Faculty. The **TLS/IOR** will assist the students during experiments and technical applications. The **IOR** will report the grade the Student earns over the course of the semester. The **IOR** will issue any incompletes (I) or withdrawals (W) that are needed. The Student will email both the **TLS** and **IOR** with any concerns regarding the lab course. The **IOR/TLS** will respond to the Student within 48 hours.

|  |
| --- |
| **REQUIRED TEXTBOOK:**  *Life Science Laboratory Manual*, 1st Ed., IRSC  *Symbiosis,* Pearson Custom Library for the Biological Sciences  Companion website: <http://biology-irsc.weebly.com> |
| **GRADING POLICIES:** |
| **Exams** – There will be three practical exams covering assigned materials. Grades for  the semester are based upon the average of Exam 3 and the best of the first two exam  grades. No extra credit projects will be granted beyond the test assignments. Grades are  assigned as follows:  90 -100 = A  80 - 89 = B  70 - 79 = C  60 - 69 = D  below 60 = F  **W**--deadline is Monday, Oct 30; **I –** if passing but emergency prevents taking final  **\*\*\* See Attendance Policy that may affect your grade\*\*\*\*** |

**Tentative Assignment Schedule**

**Week of Laboratory Topic Assignment**

Aug 28 Intro, Safety, Metric Exercise 1

Sep 4 **(Holiday)**

Sep 11 out for hurricane

Sep 18 Microscopes, Cells Exercise 2, 3

Sep 25 Mitosis Exercise 4

Oct 2 **Exam 1 (does not include mitosis)**, Meiosis Exercise 4

Oct 9 Karyotyping Exercise 5

Oct 16 Forensic Science Exercise 6

Oct 23 Tree of Life Exercise 7

Oct 30 **Exam 2**, Water Pollution Exercise 8

Nov 6 Predator Prey Experiment Exercise 9

Nov 13 Local Plants Exercise 10

Nov 20 Human Systems Exercise 11

Nov 27 Circulatory System Exercise 12

Dec 4 **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 | |
| **STUDENT LEARNING OUTCOMES:** |
| |  | | --- | | **Upon completion of BSC1005L, Life Science Lab, students will have the ability 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 | |

|  |
| --- |
| **CHEATING** |
| **CHEATING:** Cheating, including plagiarism, of ANY kind will not be tolerated by this department. Any student caught cheating will receive an immediate F in the course (no withdrawal allowed.) Any student witnessing an act of cheating who does not report it is considered guilty of this same inexcusable behavior. |

|  |
| --- |
| **MEANS OF ACCOMPLISHING OUTCOMES:** |
| Methods of instruction: Lecture, class discussions and/or interactions, laboratory and activities, and exams |

|  |
| --- |
| **ATTENDANCE AND PROCEDURES:** |
| **Attendance:** Students are expected to be present in lab in order to accomplish the  learning goals for the lab practical examinations.  **Three points will be taken off for**  **EACH** **lab class missed; absences will be assessed on EACH exam.  Students**  **will** **receive 1 free absence per semester.** For example, if you miss two lab  classes during the semester, one before Practical 1 and one after Practical 2, 3 points  would be deducted from your score on Practical 2.  **Make-up policy:**   Students **must** take their lab practical with their lab section at the assigned time. No make up practicals will be given after the normal testing has been completed. If an exam is missed, then the student’s grade will be based on the average of final lab practical and remaining practical grades. Any student not completing at least 2 exams before the final examination, must contact their instructor regarding withdrawal or an incomplete.  **EXTRA CREDIT**: No extra credit will be given. Students need to spend their time on required material. |

|  |
| --- |
| **LIBRARY AND ON-LINE REFERENCE MATERIALS:** |
| 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) |

|  |
| --- |
| **STUDENTS WITH DISABILITIES POLICY:** |
| Indian River State College provides reasonable accommodations to students with documented disabilities through the Educational Services Division / Student Disability Services 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.** These laws prohibit discrimination by institutions to "otherwise qualified" students with disabilities. This enables such students to have an equal opportunity to benefit from the education offered by those institutions. |