(SL) SCIENCE LAB

Courses

SL 120. Functional Anatomy and Physiology Lab. 1 Hour.
Functional Anatomy and Physiology Lab is a 1 credit lab that students take at the same time as taking the lecture part of the course, SC 120. It is laboratory designed to give the non-science major knowledge of the human body and its relationship with the environment. Topics covered parallel the lecture topics in SC 120 and include: the chemical basis of life, the anatomy & physiology of all organ systems, growth, development, heredity and biotechnology issues.

SL 180. Prin of Gen Chemistry Lab I. 1 Hour.
This is a laboratory class.

SL 181. Chemistry Lab I. 1 Hour.
This laboratory course is to be taken concurrently with SC 181. It is designed to reinforce the fundamental chemistry concepts discussed in lecture as well as introduce students to laboratory procedures and the basics of the scientific method.

SL 182. Chemistry Lab II. 1 Hour.
This laboratory course is to be taken concurrently with SC 182. It is designed to reinforce laboratory procedures through the application of concepts in organic chemistry.

SL 191. General Biology Lab I. 1 Hour.
This laboratory course is to be taken concurrently with SC 191. It is designed to reinforce the fundamental biology concepts discussed in lecture as well as introduce students to laboratory procedures and the basics of the scientific method.

SL 192. General Biology Lab II. 1 Hour.
This laboratory course is to be taken concurrently with SC 192. This course is designed to provide hands-on experience with plant and animal diversity, comparative anatomy and physiology, as well as the collection and analysis of lab and field data.

SL 210. Marine Biology Laboratory. 1 Hour.
Marine Biology Laboratory must be taken concurrently with Marine Biology. Laboratory activities focus on the organisms and ecosystems in the Gulf of Maine and include field trips to local marine habitats as well as laboratory investigations of local flora and fauna. Prerequisite(s): SC 191 or SC 192.

SL 221. Anat/Physiology Lab I. 1 Hour.
This laboratory course is to be taken concurrently with SC 221. It is designed to reinforce the fundamental anatomy and physiology concepts discussed in lecture, with a focus on understanding the organization of the human body at the cellular, tissue, and organ system levels, including epithelial tissues, skin, muscles, nerves, and senses by using models, data collection, and dissections.

SL 222. Anatomy/Physiology Lab II. 1 Hour.
This laboratory course is to be taken concurrently with SC 222. It is designed to reinforce the fundamental anatomy and physiology concepts discussed in lecture, with a focus on major organ systems, such as the respiratory, cardiovascular, digestive, and reproductive systems using models, data collection, and dissections. Prerequisite(s): SL 221.

SL 240. Ecology Lab. 1 Hour.
This lab focuses on ecological research principles and is designed to complement and reinforce the topics discussed in SC 240. The labs will include reading primary literature, case-studies, identification of local flora and fauna, and field and laboratory data collection and analysis.

SL 241. Microbiology Lab. 1 Hour.
This laboratory course is to be taken concurrently with SC 241. Students will gain experience handling and identifying microorganisms. Several biochemical and microbiological techniques will be learned, including using of a microscope, culturing, plating, and staining. Students will also learn about controlling microbial growth and testing for infection using immunological assays.

SL 242. Biotechnology Lab. 1 Hour.
This is a laboratory class.

SL 271. Physics Lab I. 1 Hour.
Physics Lab I is the hands-on component of SC 271 covering the following topics: force, motion, energy, work, and periodic motion.

SL 272. Physics Lab II. 1 Hour.
Physics Lab II is the hands-on component of SC 272 covering the following topics: electricity, magnetism, and optics.

SL 285. University Physics I (Laboratory). 1 Hour.
University Physics I is the first course in a two semester, calculus based university physics sequence. The goal of this course is to introduce students to the concepts of force and motion, work and energy, simple harmonic motion, and waves. The class meets for three hours each week in lecture, two hours each week in recitation, and two hours each week in the lab. This course assumes no prior background in physics. Prerequisite(s): MS 181.

SL 286. University Physics II Lab. 1 Hour.
This course continues the development of the basic physical concepts begun in SC285. Topics include electricity, magnetism, and optics. The class meets for three hours each week in lecture, two hours each week in recitation, and two hours each week in the lab. Prerequisite(s): MS 181 and (SC 285 or SC 271).

SL 287. Organic Chemistry I Laboratory. 1 Hour.
This laboratory course is to be taken concurrently with SC 381 and provides an opportunity to make measurements and observations, critically interpret the collected data, make chemically logical conclusions, and use chemicals in a safe, efficient, and environmentally sustainable manner. Prerequisite(s): SL 182.

SL 288. Organic Chemistry II Laboratory. 1 Hour.
This laboratory course is to be taken concurrently with SC 382 and provides an opportunity to make measurements and observations, critically interpret the collected data, make chemically logical conclusions, and use chemicals in a safe, efficient, and environmentally sustainable manner. Students will also research a natural product and use the acquired knowledge in the extraction and analysis of the material. Prerequisite(s): SL 287.

SL 291. Cell Biology Laboratory. 1 Hour.
This course is the hands-on laboratory component of SC 291 (Cell Biology). It is designed to introduce the techniques used to study cell structure and function. By the end of the semester you should be familiar with cell identification, cell culture, transfection, protein purification, SDS-PAGE, and Western blot procedures.

SL 299. Topic/. 0-3 Hours.
This course is intended to provide the opportunity to offer introductory courses in laboratory science that would not normally be a part of the Husson curriculum. As such the topics will depend upon the interests of students and faculty.

SL 354. General Microbiology Lab. 1 Hour.
This laboratory class will provide students an opportunity to practice microbial techniques including bacterial isolation, culture on various media, and biochemical identification of bacteria. Students will also learn gDNA isolation, 16S rRNA sequencing, and phylogenetics. The course will reinforce microbial systems and how microorganisms interact with each other. Prerequisite(s): SL 191 and SL 180 and SL 182 and (MS 141 or MS 180 or MS 181 or MS 182).

SL 393. Physical Chemistry Lab. 2 Hours.
This course is a hands-on laboratory component of the SC 393, covering topics in kinetics, thermodynamics, transport, and spectroscopy. The laboratory exercises apply physical methods to studies of complex physicochemical phenomena. Computer simulations of molecular properties complement the measurements. Three hours of laboratory per week. Prerequisite(s): SL 182 and SL 272.

SL 394. Analytical Chemistry Lab. 2 Hours.
This course is a hands-on introduction to the fundamental techniques of analytical chemistry. It covers sample treatment and volumetric, gravimetric, electrochemical, chromatographic, and spectroscopic analytical methods. Three hours of laboratory per week are designed to supplement and reinforce the knowledge gained in the SC 394. Prerequisite(s): SL 182.

SL 399. Topic/. 0-3 Hours.
This course is intended to provide the opportunity to offer 300-level courses in laboratory sciences that would not normally be a part of the Husson curriculum. As such the topics will depend upon the interests of students and faculty.

SL 499. Topic/. 0-3 Hours.
This course is intended to provide the opportunity to offer advanced courses in laboratory science that would not normally be a part of the Husson curriculum. As such the topics will depend upon the interests of students and faculty.