Draft Definitions for Lecture and Laboratory hours.

Laboratory

A Laboratory Hour is defined as being conducted in a laboratory setting with students or teams of students, under the direct supervision of a credentialed instructor with little or no outside work required. Characterized by one-on-one interaction between instructor and student. Students primarily work independently or in groups to develop or practice skills, make observations, investigate, experiment, construct, collect and analyze data, present and discuss results in a scientific debate format, engage in scientific reasoning, or manipulate tools or equipment.

Lecture (Lecture/Discussion) (Lecture/Participation)

A Lecture Hour is defined as being in a format where direct instruction occurs, and students are required to study outside of the classroom in a minimum ration of 1-hour lecture to 2 hours outside study. Characterized by the interaction between one instructor and multiple students. It may include, lecture, discussions, presentations, or participation.

REFERENCES

LASC Curriculum Hand Book

Lecture Classes

For a lecture class, one unit is considered to be one hour of lecture class time and two hours per week of homework. For the typical three-unit class, a student spends three hours per week in class and should do six hours per week of homework. The total semester hours are calculated by multiplying the weekly hours by 16.

Laboratory Classes

For a laboratory class, the hours per week are considered to be all in class with no outside assignments. Thus, one unit is three hours per week of laboratory time.

By Arrangement Lab Hours

Where a course includes by arrangement lab hours, these generally take the place of the hours assigned to homework, since the student is required to use supervised college facilities to do assignments related to homework. An example might be a 3-unit lecture course which requires the student also to work two hours per week in the computer lab. There would be only four hours per week of additional homework required.

NSTA

A school laboratory investigation (also referred to as a lab) is defined as an experience in the laboratory, classroom, or the field that provides students with opportunities to interact directly with natural phenomena or with data collected by others using tools, materials, data collection techniques, and models (NRC2006, p.3). Throughout the process, students should have opportunities to design investigations, engage in scientific reasoning, manipulate equipment, record data, analyze results, and discuss their findings. These skills and knowledge, fostered by laboratory investigations, are an important part of inquiry—the process of asking questions and conducting experiments as a way to understand the natural world (NSTA 2004). While reading about science, using computer simulations, and observing teacher demonstrations may be valuable, they are not a substitute for laboratory investigations by students (NRC 2006, p. 3).

PC Curriculum Hand Book

* **LAB HOURS/UNITS** (Ratio of in-class to homework hours is 3:0) An instructional method where students primarily work independently or in groups to develop or practice skills in a laboratory, workshop, studio, court, field, or other specialized instructional space. Instructor supervised and directs activity at the student or small group level for most of the class period.

ASCCC

Lab

Instructor-supervised time-on-task in a specialized learning facility / environment such as a biology lab, art studio, or athletic facility. Characterized by one-on-one interaction between instructor and student. Basics for 1-unit of Lab Credit: 54 hours in-class - No homework - 54 total student learning hours.

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| Instructional Category | In-class Hours | Outside-of-class Hours |
| Lecture  (Lecture, Discussion, Seminar and Related Work) | 1 | 2 |
| Activity  (Activity, Lab w/ Homework, Studio, and Similar) | 2 | 1 |
| Laboratory  (Traditional Lab, Natural Science Lab, Clinical, and Similar) | 3 | 0 |