

LONGMEADOW HIGH SCHOOL INDEPENDENT STUDY GENERAL INFORMATION

- Students may seek approval for credit granting study in areas of unique interest that are not adequately reflected in regular courses. While every effort is made to assist students in establishing the desired independent study, students are not guaranteed independent study approvals.

- Courses offered by LHS cannot be taken as an Independent study unless it is determined that over the course of the student's LHS enrollment, there is no possibility of taking the regular class, due to schedule conflicts that cannot be resolved (*as determined by the guidance counselor*).
- Independent studies are supervised by LHS faculty members or qualified administrators. Such supervision is done in addition to the standard contract workload. LHS personnel are neither expected nor required to agree to such supervision. At the discretion of the principal, a student may be granted special permission to take coursework outside of LHS supervision under the Independent Study option.
- Required approvals for Independent study
 - Supervising teacher (required for all IS contracts)
 - Department chair (required for all IS contracts)
 - Parent (required for all IS contracts)
 - Guidance counselor (required for all IS contracts)

- Contract forms are available in the Guidance Department. Fully completed and approved forms must be submitted by the 15th day of the quarter in which credit is being granted.
- Independent study may be available to students on either a graded or pass/fail basis for a maximum of 1.25 credits per quarter.
- The independent study option may replace one of the required six major courses in which LHS students are expected to enroll each year.
- An independent study is a contract and is the equivalent of a course. Students who enter into an independent study contract are expected to complete all agreed upon projects, research and other work. Students who are approved for independent studies are expected to observe all attendance and academic regulations. Additionally, those approved for independent study are expected to be highly motivated and able to work with minimal direct supervision.

Longmeadow High School – Independent Study Contract

Please print

1. Student: _____ ID#: _____
2. Expected year of graduation: _____ Homeroom #: _____
3. Faculty Advisor: Mr. Keller Department: Science
4. Project Title: Acoustics

SCHEDULE

Circle the blocks and days involved with the Independent Study

- I. Block: A B C D E F G H
- II. Day: 1 2 3 4 5 6 7 8
- III. LHS Room # _222_

GRADING

- I. X Graded (A-F) ___ Pass/Fail (P or F)
- II. Credits per quarter: 1.25 Q1 1.25 Q2 ___Q3 ___Q4

APPROVAL SIGNATURES

1. **STUDENT:** I accept and understand the conditions of this contract and the expectations associated with independent learning.
Signature _____ Date _____
2. **PARENT:** I give permission for my child to pursue this contract.
Signature _____ Date _____
3. **FACULTY ADVISOR:** I agree to supervise the student and that this contract constitutes an educationally sound program. I agree to monitor and evaluate the student's performance according to the criteria outlined in the learning contract.
Signature _____ Date _____
4. **DEPARTMENT CHAIR:** I have reviewed this contract and certify that it is an appropriate alternative for credit in my department.
Signature _____ Date _____
5. **COUNSELOR:** This contract is consistent with the requirements of LHS and the student's course of study.
Signature _____ Date _____

Longmeadow High School – Independent Study Contract

Project Title: Acoustics

Faculty Advisor Mr. Keller

Start date: _____ **Completion date:** _____

Describe the project in detail. Be specific as to goals, objectives, research and learning outcomes.

Summarize the project

The course is designed to introduce students to the physics of musical sound production and the mathematics of musical scales and instrumental harmonics.

Learning goals and objectives: (Rationale for project and knowledge and/or skills that you seek to develop)

As an extension to the very basic topics taught in a general physics class, this course expands upon and provides a more extensive analysis of the physics behind the sound waves produced by a variety of musical instruments. There is also an extensive review of various musical scales and the mathematical rationale behind each.

Project Outline: Summarize the subject matter to be covered, and outline how you propose to cover it. A vague outline is not sufficient. Attach a detailed outline of your project if the space below is not sufficient.

Students will read sections from the online text and answer questions provided within that same text. Material includes the topics of waves and sound, harmonics, musical scales, and the physical production of sound from string, wind, and percussion instruments.

Learning activities: Describe what the student will do to meet course objectives

There will be one assignment due weekly, alternating between (1) reading of the text and answering related questions and (2) conducting experiments in acoustics and sound analysis.

Materials/texts/resources to be used in the project

The Physics of Music and Musical Instruments, David Lapp.

Evaluation criteria: How will the grade be determined?

Written answers from the text will be graded based upon correctness. Experiments will be graded based upon the thoroughness and accuracy with which experimental questions have been addressed. The course grade will be determined by the points total of these weekly assignments.