Division III Filed Contract

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Study Areas	Computer Studies

Hampshire College Members

- **Jaime (Jaime) Davila** - Current Committee Chair
- **Lee Spector** - Current Committee Member

Committee Signatures/Approvals

- Jaime (Jaime) Davila signed this document on 02/01/2016 at 04:06PM.
- Lee Spector signed this document on 02/01/2016 at 04:15PM.

For my Division III project, I will design, build, and code a music player that supports FLAC and MP3 audio files and has expandable storage supporting any size of microSD card. The software will be developed on an Arduino-based platform in C++ and the Arduino programming language using cheap, general-purpose hardware and open-source libraries and will serve as a practical demonstration of the software engineering and development skills I learned in my Division II. If time allows, I will also endeavor to write a companion application for managing files on the device from a computer.

Click here to view a complete description of the Advanced Educational Activities.

You must be properly registered for all Hampshire and Five College advanced educational activities. Obtain paperwork for teaching assistants, independent studies and Five College courses in Central Records.

The spaces below list the term, course, title of your first Advanced Educational Activity followed by the name and title of the person who will evaluate this activity. This work must be completed prior to passing Division III.

Term	Fall 2015
Course	CS 290

Title	TA - Programming for Science
Name of Evaluator	Lee Spector
Title of Evaluator	Professor of Computer Science

Below details what you plan to do to satisfy the first Advanced Educational Activity requirement for Division III.

Programming for Science aims to teach non-programming students focusing on scientific fields how to code to prepare them for the increasingly computer-oriented fields they may pursue. As a TA for Programming for Science, I will help compile and review homework submitted by students to prepare them for grading by the professor. I will also download and organize student homework before in class presentations. Finally, I will hold regular TA hours and one-on-one sessions to help student learn how to code in Python and figure out how turn their project ideas into viable code.

The spaces below list the term, course, title of your second Advanced Eductional Activity followed by the name and title of the person who will evaluate this activity. This work must be completed prior to passing Division III.

Term	Spring 2016
Course	CSC 270
Title	Circuits and Systems
Name of Evaluator	Dominique Thiebaut
Title of Evaluator	Professor of Computer Science, Smith College

Below details what you plan to do to satisfy the second Advanced Educational Activity requirement for Division III.

CSC-270 Circuits and Systems is a 200-level Computer Science course at Smith focused on the circuitry that makes computers work. It is a companion course to Microprocessors and Assembly Language, which I took in my Divison II. Circuits and Systems delves further into computer hardware. The course covers boolean logic, hardware gates, and circuit diagrams, as well as more complex topics including microprocessor system design, architectures, and memory.
