

David McAvity's Individual Contract Policy

Suitable Topics

My specialty areas are applied mathematics and theoretical physics so I am most interested in sponsoring contracts that connected in a direct way to these disciplines. Contracts can take a variety of forms, but most typically students pursue some course of study in a subject area that may constitute an upper division course at other institutions, but which the student is unable to find in the Evergreen curriculum. Examples of such topics are Statistical Mechanics, Particle Physics, Complex Analysis and Tensor Calculus. I will also happily consider contracts that integrate physics and math with other disciplines. For example mathematical modeling of biological and environmental phenomena is a fruitful area of study as is the interface between mathematics and art. Very occasionally I will consider topics outside my specialty area, if they are in a field of interest to me.

Expectations

Before agreeing to sponsor a contract proposal you must be able to demonstrate that:

- You are capable of independent work,
- You have the necessary background to succeed in the proposed contract,
- An independent contract is the only way for you to learn what you want to learn, and
- Your contract proposal is educationally sound (ie it has clear learning objectives, appropriate activities, sufficient work that can demonstrate your accomplishments)

In order to discuss your proposal please arrange a meeting with me and bring: a copy of a faculty evaluation and your self-evaluation from an appropriate Evergreen program or a transcript from your previous college, a sample of your previous work (e.g. a project, a writing sample, a test, a lab book) and a draft of your project proposal.

Project Proposal

When putting together your proposal consider the following:

Working in a Group

Working together with other students is usually essential to the success of a contract. Find two or three other students to join you in your contract. Only in rare circumstance will I sponsor a contract from an individual who is working alone.

Credits

Decide on the appropriate number of credits. Reference to courses and credits awarded at other institutions for similar work is a good place to start. Individual contracts in math and physics are very demanding on the student in terms of time and effort. Before deciding on credit students should have a realistic idea of what they can achieve in the time given. As a rule of thumb students should expect to spend at least three hours of intensive study per week for each credit earned. In my experience students often need more time than this.

Learning Objectives

What do you want to learn? These should include specific content (eg gauge theories, non-linear physics, ceramic science) and skills (computer skills, problem solving skills, lab skills).

Plan of Activities

In order to achieve your learning objectives your project requires structure. Your proposal should include:

- a plan in which you outline your learning objectives on a week by week basis
- a weekly schedule for the various activities you plan to engage in to achieve your learning objectives (such as reading, group discussions, problem solving sessions, lab work, meeting with me etc).
- a list of resources that you will be using in these activities (eg a text book, the library, computer lab, online test banks etc)

Assessment

Your proposal should incorporate several different avenues for the assessment of your learning by me and by you. How will you and I know if you have achieved your learning objectives or not? Suitable forms of assessment include a portfolio of your notes, homework problems, oral presentations, written reports, computer based projects, final oral exams.

Contacting Me

Please contact me if you have preliminary questions about the suitability of a project idea. The earlier you do this the better, preferably at least three weeks prior to when you want to start your contract.

Office: Lab 1 1016

Phone: 867 5490

email: mcavityd@evergreen.edu