Course title and number  (VTPP 291 or 491) Independent Research
Term  Spring 2014
Meeting times and location  TBA, VMA 300D

Course Description and Prerequisites

Course Description: Registration for Independent Research is required for participation in the Michael E. DeBakey Undergraduate Research Program.

Prerequisites: Accepted application to the program and placement in a team is required. Students in good standing are considered regardless of GPA, major, academic level.

Unique nature of course: The Michael E. DeBakey Undergraduate Research Program arose out of competing needs to produce fundable research and to train the next generation of academic researchers. Based on the Research-Intensive Community model (Adv Physiol Educ 32: 136-41, 2008), research is performed in interdisciplinary teams of 4 lead by a team leader and mentored by a faculty member. Current projects have been chosen both for their importance to basic and applied cardiovascular science and the likelihood to lead to results suitable for publication in peer-reviewed journals. More information about available projects and how to apply at http://vetmed.tamu.edu/debakeystudents

Time commitment: You are expected to commit to a total of 10 hours/week. At least three hrs/week will be spent in meeting with your team. The other six hours will be dedicated to independent research activities.

Learning Outcomes or Course Objectives

The objective of this program is to prepare you to be a practicing scientist by performing scientific research. By the end of the course you will be able to:

- Work effectively in an interdisciplinary biomedical research team.
- Gather, interpret and evaluate relevant information from a variety of sources.
- Develop an idea into a testable hypothesis.
- Recognize and appreciate the role of failure in science
- Create a publishable research abstract from novel, important, and correct findings.
- Present credentials that on your resume/cv to be a more competitive job seeker.

Instructor Information

Name  Christopher M. Quick, Ph.D.
Telephone number  979-845-2645
Email address  cquick@tamu.edu
Office hours  Monday 9-11
Office location  VMA 300D
Textbook and/or Resource Material

No Textbook Required

Grading Policies

This is a Pass/Fail (i.e., Satisfactory/Unsatisfactory) class based on experiential learning. Your active participation in your team is as vital as preparing reports. You can earn up to 200 points:

Orientation: 5 points
Team Reports (100 points total)
  • 1 point per hour accounted for outside of class
  • due 11:59 Sunday Night
Team Participation (42 points total)
  • 1 point per hour meeting with team
Final Abstract or report: 58 points.
  • adjusted by relative team participation

Satisfactory > 150 points

Attendance Policy: (See Student Rule 7: http://student-rules.tamu.edu/rule07) “The university views class attendance as an individual student responsibility. Students are expected to attend class and to complete all assignments...If the student is seeking an excused absence, the student must notify the instructor as soon as possible after the absence, but no later than the end of the second working day after the last date of absence.” Extensions to deadlines will only be given for excused absences.

Calendar of Activities, Major Assignment Dates

Orientation: Attend the orientation meeting at the beginning of the semester. See vetmed.tamu.edu/debakeystudents for meeting date and time. If you cannot attend, you must contact the leadership at DeBakeyResearch@cvm.tamu.edu.

Seminars: Optional seminars may be offered throughout the semester covering career building, getting admitted to NSF summer programs, and presentation skills.

Conferences:
Teams will have the opportunity to represent the DeBakey Institute at a regional or national conference if abstracts and research are judged to be of sufficient quality. Students must submit their abstract at least two weeks before to their faculty mentor for an abstract to be considered. Potential conferences this semester are:
  • ASAIO, June 18-24, 2014, Abstract due date: February 12, 2014
  • Student Research Week, Abstract due date: late March
  • BMES, October 22-24, 2014, Abstract due date: TBA

Abstract or Future Research Plan: Each team will present their work in an abstract in the style of the BMES conference at the end of the semester or in a two-page document detailing a future research plan. You must contribute significantly to the project to earn co-authorship with your peers on an abstract. Teams will be given a chance to correct their abstracts and research plans until they are not of sufficient quality. Abstracts and research plans will be judged by two faculty advisors to determine whether they are of sufficient quality, with the potential for abstracts to be submitted to a conference.
Team meetings: Team meetings will be held at least 3 hrs a week. Active participation is required.

Team participation reports: Team participation reports will be submitted every week before the deadline, detailing how you spent your 10 hours that week, problems, and suggestions.

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<tr>
<th>Week</th>
<th>Topic</th>
<th>Due Sunday night, 11:59 p.m.</th>
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<tr>
<td>1</td>
<td>Orientation</td>
<td>Team Report 1</td>
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<tr>
<td>2</td>
<td>Research</td>
<td>Team Report 2</td>
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<td>3</td>
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<td>8</td>
<td>Research</td>
<td>Team Report 8</td>
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<td>9</td>
<td>Spring Break</td>
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<td>10</td>
<td>Research</td>
<td>Team Report 9</td>
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<td>Research</td>
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<td>13</td>
<td>Research</td>
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<td>14</td>
<td>Research</td>
<td>Team Report 13</td>
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<td>15</td>
<td>Research</td>
<td>Final Report due</td>
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<td>16</td>
<td>Dead week</td>
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Classroom Communication

The university has established a formal process for handling of student grievances associated with any course. If there are major concerns about the conduct of a course, which cannot be resolved by meeting with the instructor of a course, a Classroom Communication Concerns form should be completed and submitted to the appropriate department head. (This form is available in the VTPP Departmental Office, Room 332, VMA.)

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit [http://disability.tamu.edu](http://disability.tamu.edu)

Academic Integrity

For additional information please visit: [http://aggiehonor.tamu.edu](http://aggiehonor.tamu.edu)

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”