

BICC103A
Human Journey: Scientific Discovery
Sacred Heart University, Spring 2012

Tuesdays & Thursdays 9:30 –10:45 AM
Room SC203

Instructor	Dr. Suzanne Deschênes
Phone	203–371–7785
Departmental Phone	371-7780 (Sharon Cavaliere, administrative assistant)
Email	descheness@sacredheart.edu
Biology Website	biology.sacredheart.edu
Office	SC 217 F
Office hours*	Monday 11 am-12 pm; Wednesday 10:30 am-12:30 pm; Thursday 11 am-2pm
* If these hours conflict with your schedule, please make an appointment with me at a mutually convenient time.*	
Prerequisites	None.

This syllabus, any supplemental materials on Blackboard, and oral and written assignment instructions constitute your course contract. By remaining enrolled in the course, you are agreeing to these terms.

COURSE DESCRIPTION

This course examines the relationship between the scientific method and the Catholic Intellectual Tradition (CIT). Although science and religion are distinct ways of knowing the world in which we live, they nonetheless remain completely compatible with one another when viewed through the prism of the CIT. Students will learn 1) what it means to be human through the story of our genes, and 2) how scientific discovery gives our lives meaning and purpose. Through studying the life sciences students will experience 3) our human connection to the natural world and understand how our lives depend on ecosystem function. Seen through the light of the CIT, students will learn how 4) scientific knowledge can be used to forge a more just society for the common good.

The course is the third part of a four-course sequence which constitutes The Common Core: The Human Journey of the university's general education curriculum. As such it will address a set of essential questions that the university has identified as foundational and fundamental in light of the university's mission. Rooted in the CIT the questions are: 1) what does it mean to be human; 2) how can one live a life with meaning and purpose; 3) how can one understand and appreciate the natural world; and 4) how can people forge a more just society for the common good?

COURSE OBJECTIVES

Students will demonstrate:

1. an understanding of the scientific method and its uses and limitations, particularly in the context of the CIT.
2. an ability to critically analyze works and ideas from the life sciences and the CIT as they relate to the four questions on human value and meaning described above.
3. an ability to think critically, analyze, write about, and discuss the scientific method to understanding human beings and the world in which we live.

REQUIRED READING

We will be reading selections written by a number of primary sources related to the practice of science and the CIT. These readings will be available in various formats on the Blackboard course website. All reading selections and articles will be announced in class, by email, or by Blackboard at least one week prior to scheduled discussion.

The *New York Times* newspaper provides in-depth coverage of many topics pertinent to the study of biology and the environment. Therefore, you will be required to read the Science Times section of the *New York Times* newspaper on a weekly basis. Furthermore, there is an RSS feed located on Blackboard which will also give you direct links to many of the “science” stories the Times reports as well as other science news sites which will be useful in your preparation for your presentation at the end of the semester.

GENOGRAPHIC PROJECT

Students will participate in the [Genographic Project](#) and voluntarily submit a sample of DNA from a cheek swab to determine from which ancient migratory group their maternal or paternal lineage has descended. All submissions to the Genographic Project are anonymous and only the individual student will have access to his/her information. In the process student will learn the science behind this work while participating in an ongoing worldwide research project.

COMMON CORE COLLOQUIA

As part of the requirements of our course and those of the Common Core program, you must attend two common core colloquium events.

ATTENDANCE

Eight or more absences from lecture during the semester, whether excused or unexcused, may result in assignment of a failing grade for the course. Besides, attendance is critical for graded class discussions, no? 😊

Note: If you miss a lecture, it will be your responsibility to 1) contact the instructor directly to obtain missed information, and 2) obtain notes from fellow students.

Athletes: According to SHU's Student Athlete Handbook, student athletes **MUST** present a Notification of Team Travel form to the instructor "within the first two class meetings". In addition, "the professor maintains full discretion with respect to signing the form". I respect your athletic commitments, and will do my best to reasonably accommodate your schedule within the constraints of the course, but team travel requiring too many absences in lecture will seriously impede your success in this course. In this case, I will not sign the Notification of Team Travel form and will advise you to enroll in a different section of the course or take the course in a different semester.

PARTICIPATION

Be prepared for each lecture by reading assigned material and actively participating during lecture. Good class participation is defined as posing thoughtful and relevant questions and actively contributing thoughts and answers in response to issues raised in lecture. The more often you participate, and the better the quality of your contributions, the higher your participation grade will be. In general, question everything!!! Will you unquestioningly accept the information that the media, or your professors, or your peers give you? Will you allow them to think for you? How will you judge for yourself the legitimacy of sources of information, or the information itself? You don't need a Ph.D. to ask good questions. Trust your instincts! No question is too stupid or trivial. The questions you raise are more than likely questions your fellow students also have, and they can be used to clarify lecture material. Finally, please respect the points of views of your classmates during discussions. While much of this course will consist of the conveyance of the scientific community's current understanding of the natural world, it also deals with many sensitive opinion and belief issues, about which many students may have strong feelings. It is enriching for us all to be exposed to these various opinions and beliefs. It is very important that participants in discussions consider opinions and beliefs other than their own, and to respect that others have the right to hold these disparate opinions and beliefs.

GENERAL COURSE POLICIES

- Come to lecture on time. All absences and tardy arrivals will be noted per financial aid requirements. If habitual tardiness becomes a problem, you may receive a lower grade.
- Remain in the lecture until the end of the period. Restroom or food breaks should be done prior to class.
- Turn OFF all cell phones, pagers, PDAs, or other personal electronic devices during lecture. Taping or recording of lectures is not allowed without specific permission from the instructor.

ACADEMIC INTEGRITY

Any student found cheating or plagiarizing will receive a grade of **ZERO** for that work and may be expelled from the course with a failing final grade. A report will also be sent to the CAS Dean's office.

Students are reminded to remove all notes from their person, and to place all notebooks, texts, papers, cell phones and other electronic devices out of view prior to quizzes or exams. All students enrolled in BICC103 are expected to read, understand, and abide by, all provisions of Sacred Heart University's Academic Integrity Policy. The following hyperlink connects to the Academic Integrity Policy or you can access it from any course page within the Blackboard system.

- [Academic Integrity Policy](#)

As a partial guarantee of your diligence in this matter, a quiz on the academic integrity policy will be administered at the beginning of the course; failure to achieve a grade of 100% on this quiz (you have multiple attempts) by the scheduled due date will result in a deduction of 25% of the total percentage points awarded for class participation. All writing assignments must be submitted to Turnitin.com (instructions will be given during lecture).

BLACKBOARD & E-MAIL

The Blackboard Learning System is used in this course to deliver important documents and announcements. In addition, Blackboard may be used to deliver additional course content—lecture notes, review sheets—or even hold online office hours and review sessions. All students are expected to check the site frequently (at least once/day) for announcements and other newly posted course material.

Email is an official method of communication at Sacred Heart University. Since time-sensitive information critical to your success in the course may periodically be distributed via email, **all students are expected to maintain their official university-assigned email addresses in working order and read their email in a timely manner (at least twice per day Monday through Friday, and once per day on weekends).** Be aware that missing assignments or

important announcements due to inattention to this policy may result in lower grades on tests or homework assignments. The following hyperlink connects to Sacred Heart University's email policy or you can access it from any course page within the Blackboard system.

[University Email Policy](#)

ASSIGNMENTS AND TAKE-HOME EXAMS

All assignments should be submitted during the relevant lecture (see Schedule below). Assignments turned in later than the allowed time automatically will be penalized by 10%, and you will have 5 school days to make it up; any later than this and you will be penalized 100% (i.e., a grade of zero). If you have a legitimate reason for your absence that is professionally and well-documented (e.g., doctor, police, etc.), you will have 5 school days (or more, depending on the circumstances) to turn in the assignment without penalty. Having computer problems is not an acceptable excuse - you are expected to be prepared and to save your work or data on independent storage media (e.g., CD-ROM, flash key, external hard drive, etc.) on a regular basis. In the case of "family emergencies" or other serious personal issues, you must contact Dean Larry Wielk (371-7916, wielkl@sacredheart.edu) to explain your situation and have him notify all of your professors as soon as possible. Parents' notes will not be accepted.

DISABILITY

Please inform the instructor as soon as possible if 1) you need course adaptations or accommodations because of a disability, 2) you have a medical condition that may impact your performance in this course, or 3) you need special arrangements in case the building must be evacuated.

EVALUATION

- 20% Class participation/class discussions/colloquia attendance
 - 10% Class participation (grade depends on both your presence in class and asking or answering questions)
 - 6% Blogging or online discussion
 - 4% Physical attendance at 2 colloquia (check with instructor if have serious conflict) and brief written responses to colloquia
- 10% Facilitated discussion (i.e., topic leader)
- 30% 2 short critical/analytical writing assignments (15% each)
- 20% Take home midterm exam
- 20% Take home final exam

Tentative Lecture Schedule*

* Please note: This schedule should be considered tentative and flexible to allow for unforeseen circumstances such as snow days or course needs. Students will be notified of any changes as necessary.

Week	Topic	Discussion Leader
1	1/17 Introduction to course & Genographic Project	
	1/19 Scientific Method & CIT as Ways of Knowing	
2	1/24 Scientific Method & CIT as Ways of Knowing/Case Study	
	1/26 Evolution by Natural Selection	
3	1/31 Evolution by Natural Selection	
	2/2 Evolution, Intelligent Design, Creationism	
4	2/7 Science & Faith: Foes or Friends? The case of Evolution	
	2/9 Science & Faith: Foes or Friends?	
5	2/14 Human Evolution: Ape to Man	
	2/16 Human Evolution: Skull Lab	
6	2/21 Human Evolution: Skin Color Short Paper #1 due	
	2/23 Human Evolution: Disease Take-home midterm assigned.	

7	<p>2/28 Human Genome Project: Cracking the Code of Life</p> <p>3/1 Genetic Testing: Ethical, Legal, and Social Implications (Human Diseases) Take-home midterm due.</p>	
8	Spring Break	
9	<p>3/13 Genetic Testing: Ethical, Legal, and Social Implications (DTC Genetic Testing and Privacy)</p> <p>3/15 Human Development: When Does Human Life Start?</p>	
10	<p>3/20 Human Development: When Does Human Life Start?</p> <p>3/22 Cloning & Stem Cells</p>	
11	<p>3/27 Cloning & Stem Cells: Ethical and Social Implications Short Paper #2 assigned.</p> <p>3/29 Mutants, Freaks & Outcasts</p>	
12	<p>4/3 Mutants, Freaks & Outcasts</p> <p>4/5 Easter Break</p>	
13	<p>4/10 Easter Break</p> <p>4/12 Mutants, Freaks & Outcasts</p>	
14	<p>4/17 Genographic Project Results Short Paper #2 due.</p> <p>4/19 Mutants, Freaks & Outcasts</p>	

15	4/24 Eugenics 4/26 Eugenics Take home final assigned /Last lecture	
16	Friday, 5/4 Take home final due (by 5:15 pm)	