**GENERAL STUDIES COURSE PROPOSAL COVER FORM**

- **DATE**: 02/29/2012
- **COMMUNITY COLLEGE**: Maricopa Co. Comm. College District
- **COURSE PROPOSED**: Prefix: REL  Number: 240  Title: Religion and Science  Credits: 3
  - **CROSS LISTED WITH**: Prefix: ; Number: ; Prefix: ; Number: ; Prefix: ; Number: ;
- **COMMUNITY COLLEGE INITIATOR**: TOM SHOEMAKER  PHONE: 480/461-7009
- **FAX**:

  **ELIGIBILITY**: Courses must have a current Course Equivalency Guide (CEG) evaluation. Courses evaluated as NT (non-transferable are not eligible for the General Studies Program.

  **MANDATORY REVIEW**:  
  - The above specified course is undergoing Mandatory Review for the following Core or Awareness Area (only one area is permitted; if a course meets more than one Core or Awareness Area, please submit a separate Mandatory Review Cover Form for each Area).

  **POLICY**: The General Studies Council (GSC-T) Policies and Procedures requires the review of previously approved community college courses every five years, to verify that they continue to meet the requirements of Core or Awareness Areas already assigned to these courses. This review is also necessary as the General Studies program evolves.

  **AREA(S) PROPOSED COURSE WILL SERVE**: A course may be proposed for more than one core or awareness area. Although a course may satisfy a core area requirement and an awareness area requirement concurrently, a course may not be used to satisfy requirements in two core or awareness areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirements and the major program of study.

  **5.) PLEASE SELECT EITHER A CORE AREA OR AN AWARENESS AREA:**
  - **Core Areas**: Humanities and Fine Arts (HU)
  - **Awareness Areas**: Select awareness area...

  **6.) On a separate sheet, please provide a description of how the course meets the specific criteria in the area for which the course is being proposed.**

  **7.) DOCUMENTATION REQUIRED**
  - [ ] Course Description
  - [ ] Course Syllabus
  - [ ] Criteria Checklist for the area
  - [ ] Table of Contents from the textbook required and/or list or required readings/books
  - [ ] Description of how course meets criteria as stated in item 6.

  **8.) THIS COURSE CURRENTLY TRANSFERS TO ASU AS:**
  - [X] DECREL
  - [ ] Elective

  **Current General Studies designation(s):** None

  **Effective date:** Select semester... Course Equivalency Guide

  **Is this a multi-section course?**
  - [X] yes  [ ] no

  **Is it governed by a common syllabus?**
  - [X] yes  [ ] no

  **Chair/Director**: MATT COOPER  **Chair/Director Signature**: Emailed Approval to J. Ricker

  **AGSC Action**:  
  - [ ] Date action taken:
  - [ ] Approved  [ ] Disapproved

  **Effective Date:**
Humanities and Fine Arts [HU]

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Proposer: Please complete the following section and attach appropriate documentation.

**ASU - [HU] CRITERIA**

**HUMANITIES, FINE ARTS AND DESIGN [HU]** courses must meet *either 1, 2, or 3 and at least one of the criteria under 4* in such a way as to make the satisfaction of these criteria a **CENTRAL AND SUBSTANTIAL PORTION** of the course content.

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1. Emphasize the study of values, of the development of philosophies, religions, ethics or belief systems, and/or aesthetic experience.

2. Concerns the comprehension and interpretation/analysis of written, aural, or visual texts, and/or the historical development of textual traditions.

3. Concerns the comprehension and interpretation/analysis of material objects, images and spaces, and/or their historical development.

4. In addition, to qualify for the Humanities, Fine Arts and Design designation a course must meet one or more of the following requirements:

   a. Concerns the development of human thought, including emphasis on the analysis of philosophical and/or religious systems of thought.

   b. Concerns aesthetic systems and values, literary and visual arts.

   c. Emphasizes aesthetic experience in the visual and performing arts, including music, dance, theater, and in the applied arts, including architecture and design.

   d. Deepen awareness of the analysis of literature and the development of literary traditions.

**THE FOLLOWING ARE NOT ACCEPTABLE:**

- Courses devoted **primarily** to developing a skill in the creative or performing arts, including courses that are **primarily** studio classes in the Herberger College of the Arts and in the College of Design.

- Courses devoted **primarily** to developing skill in the use of a language — **However, language courses that emphasize cultural study and the study of literature can be allowed.**

- Courses which emphasize the acquisition of quantitative or experimental methods.

- Courses devoted **primarily** to teaching skills.
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<td>240</td>
<td>Religion and Science</td>
<td>HU</td>
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Explain in detail which student activities correspond to the specific designation criteria. Please use the following organizer to explain how the criteria are being met.

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<th>Criteria (from checksheet)</th>
<th>How course meets spirit (contextualize specific examples in next column)</th>
<th>Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)</th>
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<td>C1</td>
<td>This course is the study of the development of the scientific method and scientific world view and the parallel development of various religious approaches and world views and the impact each has had on the development of the other.</td>
<td>See p. 2 of the Syllabus under &quot;Exam&quot; Section see the unit descriptions for Histories and Contact. Also see Course Competencies 3,4,5,7; Course Outline II, VIII</td>
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<tr>
<td>C4a</td>
<td>In this course students are required to view various contemporary media that seek to present and/or interpret the relationship of the development of the scientific and religious perspectives and incorporate their analysis into classroom discussion.</td>
<td>See p. 2 of the Syllabus under &quot;Choices&quot; Section. Also see Course Competencies 5 and 7; Course Outline, IV, V, VI, and VII</td>
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Official Course Description: MCCCD Approval: 6-23-09

REL240 2009 Fall - 9999

Religion and Science

Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues.

Prerequisites: None.

Go to Competencies  Go to Outline

MCCCD Official Course Competencies:

REL240 2009 Fall - 9999  Religion and Science
1. Identify and compare various definitions of “science.” (I)
2. Identify and compare various definitions of “religion.” (I)
3. Describe the various ways that religion and science engage one another. (II, III)
4. Differentiate the underlying assumptions and beliefs of several religious approaches to the sciences. (I, II)
5. C1 Describe and interpret the connections between pre-scientific and scientific religious descriptions of the “way things are.” (IV, V, VI, VII)
6. Define and explain the various religious alternatives to contemporary western science. (V, VI, VII, VIII)
7. C1 Compare and contrast the varying attitudes within religious traditions to the various sciences. (IV, V, VI, VII)
8. Generalize and critique the key factors in the relationship of science and religion regarding current events and issues. (VIII)

Go to Description  Go to top of Competencies

MCCCD Official Course Outline:

REL240 2009 Fall - 9999  Religion and Science

I. Defining “Science” and “Religion”
A. Empirical method and materialism
B. Pseudo-science

II. John Polkinghorne’s Four Models of the Relationship of Religion and Science
A. Religion and science in conflict
B. Independence of religion and science
C. Religion and science in dialogue
D. Integration of religion and science

III. The History of the Proofs of God
A. “God” as First Cause
B. “God” as designer

IV. Traditional and Scientific Cosmologies
A. The Hebrew Bible
B. Ptolemaic
C. Copernican
D. Einstein, Hubble and the expanding universe

V. Traditional and Scientific Cosmogony
A. The Hebrew Bible
B. Hindu creation
C. American Indian emergence cycles
D. Creationism and creation science
E. Deism
F. The big bang
G. Intelligent design
H. Myth and science

VI. Disease and Healing
A. The Hebrew Bible
B. The New Testament
C. Islam and pre-modern medicine
D. Modern Western medicine
E. Faith healing, Christian Science and New Age traditions
F. Chinese healing arts

VII. Human Thought and Emotion
A. Pre-modern views of mental illness
B. Eastern traditions and “the Mind”
C. Psychology, psychiatry and neuroscience
D. Scientology and the mind
E. Science, consciousness and the soul

VIII. Intersection of Religion and Science in Contemporary Issues
A. Definition of life
B. Genetic manipulation and cloning
C. Global climate change
D. Sexual norms and deviance
E. Ethics of scientific research
F. Science, religion and education
Religion and Science

REL 240 Fall '10 (Section 58616)

The Official Course Description:

Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues.

Evolution, alchemy, Big Bang, Quantum chaos, astrology, near-death experiences, multiverses, channeling, transubstantiation, vortexes, π, infinity and relativity. We have a LOT to cover in what will feel like a very short semester.

Instructor: Tom Shoemaker

Time/Location: Meets TR 12:00-1:15 pm in BP 3N from 08/24/10 - 12/16/10

Office Hours: By Appointment

Contact: Telephone TBA / Email tomshoemaker@mesacc.edu

Textbook

The official textbook is Ian Barbour's Religion and Science. If you want to save some money, order it from Amazon.com for $19.79 Dr. Barbour was both Professor of Religion AND Professor of Science, Technology, and Society at Carleton College. In addition, you will be given a variety of readings handouts.

Grading

Final grades are based on

- 4 exams (40 points each);
- Choices (60 points);
- Discretionary points (30 points);

The grading scale used is:

A = 225-250 | B = 200-224 | C = 175-199 | D = 150-174 | F = Below 150

Exams

There are four exams, each consisting of 15 multiple choice and one essay question.
Definitions, Directions and Dispositions (Tu 09/14). To speak of the relationship of "religion" and "science", we need to define terms. On the one side (religion), this addresses the distinction between "worldview" and "religion," an overview of the major religious traditions, the definition and impact of various ideas (monotheism, polytheism, pantheism, revelation, etc.) On the other side (science), it addresses the relationship among science, mathematics, and technology, considers the definition, history and importance of "the scientific method," and explores the overlap of "philosophy," "science," and what we now call "pseudo-science." For the two sides to meet, we talk of "starting places" -- ideas v. observations.

Histories. (Tu 10/05). (Barbour: Part One, pp. 3-74) This is a big sweep pair of stories that frequently overlap. One begins with Thales of Miletus, and includes Archimedes, Al-Kindi, Ibn Rushd, Roger Bacon, Copernicus, Galileo, Newton, Darwin and many many more. The other starts at creation (accounts), and travels through Augustine, Aquinas, the Reformation, the Puritans, The Fundamentals and Vatican II. Take special note of those who play roles in both stories. (This one may be rescheduled to 10/12).

Contact. (Tu 11/16). (Barbour: Parts Two and Three, pp. 77-249) The turning points of science are rarely "all-of-a-sudden" -- any key insight (even Newton's) builds on what came before. But there are a few special crystalizing moments: Galileo's publication on the heliocentric solar system, Newton's laws of motion, Darwin's Origin of the Species, Mendel's genetics, Crick and Watson's "discovery" of DNA. We consider the various shifts in thinking that came with each of these moments, often pitting scientist against scientist, and one religious view against another.

And Now. (Tu 12/13). (Barbour: Part Four, pp. 253-352) There are a series of current issues in science and religion: the (neuro-)science of belief; definitions of "consciousness" and "soul;" miracles and science; DNA and morality; genetic engineering.

Note: Exam make-ups are allowed 1) for any reason, as long as arrangements are made prior to the day of the exam (email contact is sufficient). In such a case, the exam will be made available in the Testing Center up to the starting time of the following class period. After that, no further make-up opportunity will be available. Or 2) if proof is provided of a medical or legal emergency.

Choices

All students are required to take the exams and participate in class discussions. There is one more piece, but this is your choice. You may mix and match from the following list to get 60 points (this piece cannot be used as extra credit.)

Listen.
Experience, summarize and share with your classmates media pieces from BBC and NPR (20 points for each).

Encounter deeper exploration of people, events and issues relating science and religion through a wide variety of BBC and NPR media programs and share them with your classmates. Each summary is worth 20 points toward your Choices assignment.

I will provide you with a wide list of programs I have gathered over the years that bring our two subjects together. Each ranges from 25-50 minutes in length. You listen, and write a 75-100
word summary that highlights the major points of the piece. Write these as if it is important that others know what the piece is trying to communicate, knowing that your audience will never have time to watch or listen for themselves. You should also present a conclusion clarifying the contact point between the science and religion. Submit your summary to me, and I will distribute it to your classmates online.

This is not an opinion piece.
There will be no posted responses to your synopsis.

All of the programs are available to you in the Engagement Project center (housed in our department office), and online. IOT indicates episodes of the BBC program In Our Time with Melvyn Bragg. BB indicates episodes of the BBC program Beyond Belief.

Note: Only one post per item will be credited (that is, if someone else has done it, you will need to pick a new episode).

Watch.
Attend a video presentation here on campus. Each video day earns 20 points toward the "Choices" requirement.

You will have the opportunity to see Inherit the Wind, Contact, and/or Ancient Discoveries: Lost Science of the Bible. These are three very different approaches to the connection between science and religion. Points are earned by attendance at the event and participation in the conversation that follows (sorry, this one can’t be done at home). All video events are held on Thursday at (20 points each).

Read.
This assignment fully satisfies the "Choices" requirement.

I have run across three very interesting books in the past year. This option, worth 60 points, involves acquiring, reading, and discussing with me one-on-one face-to-face any of the following three titles:

**Spook: Science Tackles the Afterlife** by Mary Roach.

Who knew that reading about science could be so much fun? This book addresses the quest for reincarnated souls, the weighing of the human soul, the stuff of ectoplasm, medium school and more.

**Denialism** by Michael Specter.

Have you heard the one that says that autism is caused by a government conspiracy to protect that pharmaceutical industry? Or the one that says humanity would be better off if we stopped using pesticides on our crops? Specter argues that there are real facts being INTENTIONALLY ignored when people make such claims.

**The Varieties of Scientific Experience: A Personal View of the Search for God** by Carl Sagan.
Billions and billions -- Sagan was a TV science superstar long before Bill Nye the Science Guy got his start. He died in 1996, but he clearly still had some thoughts to share on the frontier between science and religious belief. This one was published 11 years after his death. Cool trick. Interesting book.

Our time together will be limited to 20 minutes, and points are awarded on the basis of your ability to read and discuss the book. You should come with something to say.

This assignment requires face-to-face time. There is no technological alternative.

Collect.
Assemble a collection of "reliigiographies" (40 points).

Official Statement of Approach. The Philosophy & Religious Studies department at MCC offers courses in religious studies, as distinguished from religious education. Whereas religious education seeks to strengthen a person in his/her particular tradition, religious studies seeks a perspective from outside all traditions in pursuit of an understanding of the historical, cultural, political, and economic dimensions of various traditions. While the beliefs of religions are taught in our classes, our instructors do not evaluate the truth claims of these traditions, nor do we privilege or denigrate any particular religion.

Critical Thinking. This is a course that offers information and expects thinking--not just remembering the information, but using your intellectual powers to draw connections, and most of all to imagine the perspectives of people very different from you. Toward that end, there will be a great many challenging moments in the semester. I do that on purpose. If you hide behind a sectarian wall and refuse to entertain that the whole world is not like you, I will toss a stink bomb or two over that wall to get you to come out.

You can communicate anything in this class environment as long as it is said with respect for others. Respectful disagreement is a critical element of religious studies. But remember that cyberspace is an awkward communication tool: your words can stand out in ways you don't anticipate, so be especially careful to communicate the respect.

And don't be surprised if I challenge you. I love religion. I deplore uncritical thinking. I don't think there's any conflict between those two.

Conversions. I've never had one in class, and I expect I never will. It is imperative that everyone in our class has the freedom to explore in the directions they want without worrying that someone else is trying to change his or her religion. I am not interested in converting you, and I believe it is inappropriate for you to try to convert me or any other student.

Cell Phones. Cell phone interruptions in class are not cool, no matter what ring tone you have. But then again, it isn't a high crime or misdemeanor. So here is the policy:

Anyone whose cell phone rings in class owes the instructor a double espresso from a local cafetería. Your name will be recorded on the board at the front of the room until your fine has been satisfied.
Should the instructor's cell phone ring in class (and yes, it has happened), the instructor owes everyone in class that day a small Jazzland coffee, tea or hot chocolate.

This does not apply to vibrating cell phones.

**Academic Honesty.** And I hate saying this, but it has to be said: Anyone caught cheating or plagiarizing will receive a failing grade for the course. See the Mesa Community College Student Handbook for the full policy statement.

**Professor/Student Relations.** The greatest advantage of the community college is that your teachers are accessible to you. You are invited and encouraged to visit me during the term. My office is in the building just north of the classroom building.

Inevitably, the question arises what to call the instructor. I do not have a Ph.D., so please do not call me "Dr. Shoemaker". My name is Tom. If that feels too informal for you, either "Professor Shoemaker" or "Mr. Shoemaker" will work well.

To keep the professor-student relationship functioning well, students and teachers should both be aware of its boundaries: no off-color humor, no hugs, no gifts. The college has released a statement on sexual harassment of which you should be aware.

I ask one further thing: I teach religion, but I am not a member of the clergy. Please don't assume that I have any expertise at counseling. I don't.

**You are invited, but...** The advantage of the community college is the access students have to their instructors. I have office hours every day, but that is not the only time I am available. Please make it a point to stop at some point.

At the same time, I have 150 students each semester. That means I don't have all the time I would like, so I am asking that any given visit be limited to 10 minutes.

And getting back to that professor-student relationship, there are certain topics that I will bring up in class (such as sexuality, personal relationships, and my own personal experiences). They have everything to do with religion, but they do not play out so well in a one-to-one setting. I don't want to run the risk of any misunderstandings, so these topics are simply off limits.

**Dropping the Course.** Things happen. Sometimes students get a new job, or their work schedule changes, or their family needs help in a special way. Sometimes you just realize the internet course was the wrong approach for you.

But don't drop unless you really have to. Talk to me about your options first. If you are worried about your grade, see me to be sure of where you stand. You might be able to fold into a regular classroom if that works. Talk to me.

**MCC's Early Alert Program.** In order to enhance your chances of academic success at MCC, the college offers a number of campus support services, including the Early Alert Referral System (EARS). Faculty and staff are making an effort to alert and refer students to campus services for
added support. Students may receive a follow up call from various campus services as a result of an EARS referral. Students are encouraged to participate, but these services are optional. More information is available at the Early Alert Referral Services web page.

**Grievance Process.** If you a problem arises that you believe needs to be addressed through the grievance process, refer to Section 2.3.5 of the Student Handbook for the details of that process. Note that a disagreement over your grade cannot be resolved through this process -- only the instructor can change your grade, and there is no other level that can require that of the instructor. For all other issues, you will need to start the process by speaking to the instructor first, and if you do not get resolution there, follow the appropriate steps. Do not start with the highest level, as it will simply be kicked back down to the instructor, wasting your time.

**Special Needs.** If you have or think you have a disability, including a learning disability, please make an appointment with an advisor at disability resources.

Students are responsible for all information provided in this syllabus and in the Mesa Community College catalog and student handbook.
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