Course Description

*Faith and Science* This course investigates the relationship between Orthodox Christianity and scientific inquiry. Students will critically reflect on the historical emergence of science as a discipline distinct from theology, and how major discoveries in the natural sciences have shaped the discourse concerning Christianity in public life. Topics covered in the class include: cosmology; evolution; genetics; classical and quantum physics; sociology; medicine; neurobiology and the science of consciousness. Students will consider how scientific discovery affects theological understanding, and how Christian faith guides the application of science and technology. Providing students with a foundation in scientific discourse, this course will also give students an opportunity to craft Orthodox Christian apologetics.

Course Objectives

This course:

- introduces students to questions and controversies that have arisen between faith and science.
- examines how these questions have been answered by Western and Eastern Orthodox Christians.
- reflects critically on how conflicts have arisen
- investigates how contemporary scientific research relates to a life of Christian faith in the Orthodox Church

Expected Outcomes

Upon completion of the course the student will be able to:

- outline the major historical points of contact and conflict between faith and science
- articulate Orthodox Christian approaches to faith and science
- promote an honest and charitable dialogue in questions regarding faith and science
- identify areas of continuing discussion and emerging consensus
- provide pastorally sensitive leadership to persons asking questions related to faith and science

Course Bibliography

Required Reading


**Reserve Reading**


**Recommended Reading**


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**Course Requirements**

**Weekly Reflections** 40%
1-2 page (350-700 words) reflection based on the assigned readings and media for the week. Reflections are to be posted on eCampus prior to the beginning of each class session.

Responses 20%
Dialogue partners will respond to assigned reflections identifying areas where they agree or disagree with the author. (see Reflection Dialogue Partners for weekly assignments) Questions may also be raised for further consideration. Responses shall be up to one page (250-350 words)

Final Paper 40%
An Orthodox Response to a Faith and Science Question: the paper will address a scientific topic or figure of the student’s choice. The professor must approve proposals. A final presentation will be made during final two course sessions.
ST320: 7-10 pages/ST420: 15-20 pages

Note about final grades
All assignments are graded on a 100 point scale. Final letter grades for the course are based on the following scale:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Letter Grade</th>
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<tbody>
<tr>
<td>98 – 100</td>
<td>A+</td>
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<tr>
<td>94 – 97</td>
<td>A</td>
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<tr>
<td>90 – 93</td>
<td>A-</td>
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<tr>
<td>85 – 89</td>
<td>B+</td>
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<td>80 – 84</td>
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<td>75 – 79</td>
<td>B-</td>
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<td>70 – 74</td>
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<td>50 – 59</td>
<td>D</td>
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<td>0 – 49</td>
<td>F</td>
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Letter grades reflect the following:
A-level work “exceeds expectations” This designation applies to work that is free of mechanical errors, goes beyond the basic requirements of the assignment, and makes connections between the topic and other relevant ideas and or themes.
B-level work (B-, B, B+) "meets expectations." This designation applies to work that has no more than three mechanical errors, meet the basic requirements of the assignment, and effectively addresses the assigned topic.
C-level work "falls short of expectations." This designation applies to work that contains more than three mechanical errors, omits one or more requirements, and addresses the topic superficially.

Academic Dishonesty
Academic dishonesty is a serious offense that can result in the grade of F and possible expulsion from the seminary. See the seminary’s “Style sheet for theses and extended papers” for guidelines on citing print and electronic sources.
Attendance
Please see SVS Attendance Policy, SVS Academic Catalog p 63-4
http://www.svots.edu/sites/default/files/catalog13_2.pdf

Late Work
All work must be completed by the date indicated in the schedule of assignments. Late papers will be penalized, unless an extension is granted for serious reasons. Computer or printer failure, as disruptive as this may be for our computer-centric existence, is not grounds for a penalty-free extension.

Schedule of classes and assignments
NOTE: Due to the dynamic nature of the field, certain reading, viewing or listening assignments are subject to modification during the course of the semester. Any modifications to assignments will be announced in class and on eCampus.

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Homework</th>
<th>Weekly reflection [1-2PW]</th>
<th>Due Today</th>
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<tbody>
<tr>
<td>1</td>
<td>8/30</td>
<td>Introduction</td>
<td><strong>Homework:</strong> Read Psalm 19, 104; McGrath, Part I p.1-42; Polkinghorne in OHSR p.57-70 (eCampus); “How Steve Jobs turned Technology—and Apple—into Religion.”; Bill Gates: Here’s my Plan to Improve our World—and How You Can Help” Wired.com (links on eCampus) [75PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting.</td>
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<td>2</td>
<td>9/6</td>
<td>Landmark Debates</td>
<td><strong>Homework:</strong> Read McGrath, Part II p.43-135 [92PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting.</td>
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<td>3</td>
<td>9/13</td>
<td>General Themes</td>
<td><strong>Homework:</strong> Read Nesteruk ch. 1-2 p.4-40; Buxhoeveden Ch 1-4 p.3-64. [97PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting. <strong>Due Today:</strong> Post paper proposal on eCampus</td>
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<td>4</td>
<td>9/20</td>
<td>Introduction to Orthodox Perspectives</td>
<td><strong>Homework:</strong> Read Nesteruk, ch.3-4, 41-117 [76PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting.</td>
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<td>5</td>
<td>9/27</td>
<td>Patristic Theology and Contemporary Science</td>
<td><strong>Homework:</strong> Read McGrath ch. 21-2, p.163-174; Woloschak 1-48, 81-139;  <em>Science Evolution and Creationism</em> [167PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting. <strong>Due Today:</strong> Peer review of paper proposal</td>
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<td>6</td>
<td>10/4</td>
<td>Evolution</td>
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<td>Date</td>
<td>Homework</td>
<td>Notes</td>
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| 7     | **Homework:** Read McGrath ch.19, 151-6; Nesteruk 5-7, pg. 118-248; *Science, Evolution and Creationism* [180PR]  
Weekly reflection [1-2PW]  
**Cosmology**  
**Homework:** Read McGrath ch.20, p.157-62; Breck SVSQT 55:4 2011, p.485-500 [20PR]  
“Star birth sparked at the galaxy’s edge” by Ken Crosswell Nature, 4 April, 2014 (eCampus)  
Weekly reflection [1-2PW] post on eCampus prior to next class meeting. |
| 8     | **Guest Scientist:** Dr. Dana Casetti  
**Quantum Theory**  
**Homework:** Read McGrath ch.23-4 p.175-90; [15PR]  
Listen to “Blame” and “Bliss” from *Radiolab* (links on eCampus)  
Weekly reflection [1-2PW] post on eCampus prior to next class meeting. |
| 9     | **The Human Mind**  
**Homework:** Read Deane-Drummond in OHSR p.891-907;  
Kauffman 3-45 [58PR];  
Weekly reflection [1-2PW] post on eCampus prior to next class meeting. |
| 10    | **Emergence and Ecology**  
**Homework:** Cole-Turner in OHSR p.929-944; Woloschak “What is on the Horizon” (eCampus); Discover Magazine article on Epigenetics (eCampus) [55PR]  
Listen to “What are you doing for the rest of your life” *This American Life* (link on eCampus)  
Weekly reflection [1-2PW] post on eCampus prior to next class meeting. |
| 11    | **Bioethics**  
**Due Today:** Post full draft of final paper on eCampus today |
| 12    | **Student Presentations**  
**Due Today:** Peer review of paper drafts due today |
| 13    | **Student Presentations** |
| 12/16 | **Final Paper**  
Email to professor by 5:00pm |