

Fr. Sergius Halvorsen

Class meeting time: Tuesday 9:15-11:45 am

Office Hours: Mon 12-2, and by appointment

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

- McGrath, Alister E. *Science and Religion: a New Introduction*. Second edition. West Sussex, UK: Wiley-Blackwell, 2010. ISBN: 978-1405187916.

- Nesteruk, Alexei V. *Light from the East: Theology, Science and the Eastern Orthodox Tradition*. Minneapolis, MN: Augsburg Fortress, 2003. ISBN 978-0800634995

Reserve Reading

- Breck, John. "God in a Quantum World." *St. Vladimir's Theological Quarterly* 55, no 4 (2011): 485-500.
- Bouteneff, Peter. *Beginnings: ancient Christian readings of the biblical creation narratives*. Grand Rapids, MI: Baker Academic, 2008. (BT695 .B63 2008)
- Buxhoevedan, Daniel and Gayle Woloschak, editors, *Science and the Eastern Orthodox Church*. Surrey, England: Ashgate Publishing Limited, 2011. (BX342.9.S35 S35 2011)
- Clayton, Philip and Zachary Simpson, editors, *The Oxford Handbook of Religion and Science*. New York: Oxford University Press, 2006.
- Dowe, Phil. *Galileo, Darwin, and Hawking: the interplay of science, reason, and religion*. Grand Rapids, MI: Wm B Eerdmans, 2005. (BL240.3.D39 2005)
- Gay, Peter. *The Enlightenment: an interpretation*. New York: W W Norton, 1977. (B802.G3 1977)
- Haught, John F. *Science and Faith: a New Introduction*. New York: Paulist Press, 2012. (BL240.3.H39 2012)
- Nicolescu, Basarab, editor. *Transdisciplinarity: Theory and Practice*. Cresskill, NJ: Hampton Press, 2008.
- Polkinghorne, John. *Serious Talk: science and religion in dialogue*. Valley Forge, PA: Trinity Press International, 1995. (BL240.2.P5764 1995)
- Polkinghorne, John. *Quarks, Chaos and Christianity: questions to science and religion*. New York: Crossroad, 1996. (BL240.2.P5754 1995)
- Puhalo, Lazar. *The Evidence of Things Not Seen: orthodox Christianity and modern physics*. Dewdney, BC, Canada: Synaxis Press, 1996. (BL240.2.P83 1996)
- *Science Evolution and Creationism*. National Academy of Sciences, Institute of Medicine. (available for free download <http://www.nap.edu/catalog/11876.html>)
- Smiles, Vincent M. *The Bible and Science*. Collegeville, MN: Liturgical Press, 2011.
- Woloschak, Gayle E. *Beauty and Unity in Creation*. Minneapolis, MN: Light and Life Publishing, 1996.

Recommended Reading

- Kauffman, Stuart. *At Home in the Universe: the search for laws of self-organization and complexity*. New York: Oxford University Press, 1995.
- Peacocke, Arthur. *Paths from Science Towards God*. Oxford: Oneworld Publications, 2001.

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:

98 – 100	A+
94 – 97	A
90 – 93	A-
85 – 89	B+
80 – 84	B
75 – 79	B-
70 – 74	C+
65 – 69	C
60 – 64	C-
50 – 59	D
0 – 49	F

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.

1	8/30	Introduction Homework: 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.
2	9/6	Landmark Debates Homework: Read McGrath, Part II p.43-135 [92PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting.
3	9/13	General Themes Homework: 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. Due Today: Post paper proposal on eCampus
4	9/20	Introduction to Orthodox Perspectives Homework: Read Nesteruk, ch.3-4, 41-117 [76PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting.
5	9/27	Patristic Theology and Contemporary Science Homework: Read McGrath ch. 21-2, p.163-174; Woloschak 1-48, 81-139; <i>Science Evolution and Creationism</i> [167PR] Weekly reflection [1-2PW] post on eCampus prior to next class meeting. Due Today: Peer review of paper proposal
6	10/4	Evolution

		Homework: Read McGrath ch.19, 151-6; Nesteruk 5-7, pg. 118-248; <i>Science, Evolution and Creationism</i> [180PR] Weekly reflection [1-2PW]
7	10/11	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	10/18	Guest Scientist: Dr. Dana Casetti Quantum Theory Homework: Read McGrath ch.23-4 p.175-90; [15PR] Listen to “Blame” and “Bliss” from <i>Radiolab</i> (links on eCampus) Weekly reflection [1-2PW] post on eCampus prior to next class meeting.
9	10/25	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	11/8	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” <i>This American Life</i> (link on eCampus) Weekly reflection [1-2PW] post on eCampus prior to next class meeting.
11	11/15	Bioethics Due Today: Post full draft of final paper on eCampus today
12	11/29	Student Presentations Due Today: Peer review of paper drafts due today
13	12/6	Student Presentations
	12/16	Final Paper Email to professor by 5:00pm