Honors (Un)common Read - The Fabric of the Cosmos: Space, Time, and the Texture of Reality

IDH 2930 Section 1352

Time: Wednesday, 7th Period (1:55-2:45 pm)

Location: Hume 0119

Spring 2017

**Instructor**

Erin Patrick, Ph.D.

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**Course Description**

In this course, we will read Brian Green’s book –The Fabric of the Cosmos: Space, Time, and the Texture of Reality– and discuss its contents, which covers the scientific discoveries that have helped to evolve an understanding of the make-up of the cosmos and what is still unanswered. The reading will be augmented by a PBS Nova television series, which is available for free streaming at <http://www.pbs.org/wgbh/nova/physics/fabric-of-cosmos.html>.

“Space and time form the very fabric of the cosmos. Yet they remain among the most mysterious of concepts. Is space an entity? Why does time have a direction? Could the universe exist without space and time? Can we travel to the past? Greene has set himself a daunting task: to explain non-intuitive, mathematical concepts like String Theory, the Heisenberg Uncertainty Principle, and Inflationary Cosmology with analogies drawn from common experience. From Newton’s unchanging realm in which space and time are absolute, to Einstein’s fluid conception of spacetime, to quantum mechanics’ entangled arena where vastly distant objects can instantaneously coordinate their behavior, Greene takes us all, regardless of our scientific backgrounds, on an irresistible and revelatory journey to the new layers of reality that modern physics has discovered lying just beneath the surface of our everyday world.”

-Vintage Books

**Required Book**

“The Fabric of the Cosmos: Space, Time, and the Texture of Reality” by Brian Greene, 2005.

**Evaluation of Grades**

This course will have weekly reading assignments and in-class discussions. Presentations will be required by each student near the end of the semester on related topics of their choosing. Student grades will be based on their participation in class and final presentation (60% attendance and participation, 40% presentation).

**Students Requiring Accommodations**

Students with disabilities requesting accommodations should first register

with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by

providing appropriate documentation. Once registered, students will receive

an accommodation letter which must be presented to the instructor when

requesting accommodation. Students with disabilities should follow this

procedure as early as possible in the semester.

**Course Evaluation**

Students are expected to provide feedback on the quality of instruction in this

course by completing online evaluations at https://evaluations.ufl.edu.

Evaluations are typically open during the last two or three weeks of the

semester, but students will be given specific times when they are open.

Summary results of these assessments are available to students at

https://evaluations.ufl.edu/results/.

**Class Demeanor**

Students are expected to arrive to class on time and behave in a manner that is

respectful to the instructor and to fellow students. Please avoid the use of cell

phones, and restrict eating to outside of the classroom. Opinions held by other

students should be respected in discussion, and conversations that do not

contribute to the discussion should be held at minimum, if at all.

**Class Attendance and Make-Up Policy**

Class attendance is expected. Each unexcused absence will result in a reduction in the final grade. Excused absences are consistent with university policies in the undergraduate catalog (https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx) and require appropriate documentation.