



## *Robots, Rockets, and Ray Guns: Science and Man in Science Fiction*

Summer 2022



The literary genre of Science Fiction covers a strikingly broad variety of writing styles and purposes. The plausibility of the math and science incorporated in Science Fiction also varies widely. In this course, we will read approximately ten short stories and novel excerpts from the field and then discuss both the overt and subtle portrayals of known scientific and mathematical principles which they contain. Furthermore, while Science Fiction is often thought of as simple space operas or entertaining page-turners, these stories often pose thought-provoking and surprisingly profound questions about man's relationship to creation, his place as a subcreator via science and engineering, and his relationship to his technological creations. These topics will also be centerpieces of the class discussions.

A wide variety of math and science topics will be addressed, including such subjects as thermodynamics, geology, atmospheric science, artificial intelligence, computer programming, epistemology, the scientific method, chaos theory, interactive/information technology, chemistry, Newtonian mechanics, infinity, and probability.

This course is geared towards upper school students. Students will be expected to read the assigned material and come to class prepared to participate in a thoughtful and respectful discussion. Assignment lengths per class will vary but will generally be between 10 and 25 pages of text. Care will be taken to select works that do not contain objectional material, but both the scientific principles and the difficulty of some of the subject matter call for an older cohort of students.

Students may be encouraged to make a presentation at the end of the course. Possible projects include an original short story, an overview of a scientific or technological invention or area of research, or even students' original work such as a robotics project, a mathematical proof, scientific demonstration, model rocket, etc.

Please don't hesitate to contact Dr. Clancy with any questions about the course or readings.

**Class Dates:** Begins Monday, July 11, 2022; running through Thursday, August 11, 2022.

**Class Times:** Monday and Thursdays: 10:00 a.m. — 11:00 p.m. (EST)

**Instructor:** Dr. Chris Clancy

**E-mail:** [clancy\\_schole@comcast.net](mailto:clancy_schole@comcast.net)

## **COURSE TEXTS**

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Dr. Clancy will provide excerpts of novels and links to legitimate sources for short stories. Every effort will be made to ensure that links are to reputable websites (educational or archival), but because other materials may be available through some sites parents may want to be aware of what information their students are accessing. It is likely that some materials will need to be purchased, but all efforts will be made to minimize the necessity of purchasing material without compromising the quality of the course.

Below is a current reading list, but changes may be made depending on text availability, class pace, student interest, and Dr. Clancy's whims.

### **CURRENT READING LIST:**

*Out of the Silent Planet* C.S. Lewis 1938, excerpts  
"Runaround" from *I, Robot* Isaac Asimov 1950  
"Proof" from *I, Robot* Isaac Asimov 1950  
*The Planiverse* A.K. Dewdney 1984, excerpts  
"-And He Built a Crooked House" Robert Heinlein 1940  
"The Murderer" Ray Bradbury 1953  
"The Feeling of Power" Isaac Asimov 1958  
"The Machine Stops" E.M. Forester 1909  
"The Library of Babel" Jorge Luis Borges 1941  
"The Universal Library" Kurd Lasswitz 1901  
"Superiority" Arthur C. Clarke 1951  
"A Sound of Thunder" Ray Bradbury 1952  
"In Search of Infinity" N. Ya. Vilenkin 1968  
"Desertion" Clifford Simak 1944  
"A Meeting with Medusa" Arthur C. Clarke 1971  
"Paul Bunyan versus the Conveyor Belt" William Upson 1947

## **THE VIRTUAL CLASSROOM**

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We will be using the free online "virtual classroom" software provided on Zoom. The virtual classroom will provide students with interactive audio, and text chat. We will provide students with a link (via email) that will enable students to join the virtual classroom.

The web-based whiteboard ziteboard.com may also be used in class.

Specific information regarding the technology used by Scholé Academy (including required technology) can be found by visiting the [Technology in the Classroom](#) section of the Student Parent Handbook.

## **ABOUT THE INSTRUCTOR**

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**Chris Clancy** earned her PhD in Chemistry from the University of North Carolina at Chapel Hill. After working as a postdoctoral researcher at Duke University and the University of Chicago, she decided to leave academia and stay home with her first-born son. She and her husband homeschool their four children. After reading Dorothy Sayers' "The Lost Tools of Learning", she was inspired to teach her children in the classical style of learning.

Chris has taught high school Biology, Chemistry, and Physics to both her own children and other homeschoolers at a Catholic homeschool coop which she and her husband helped found. She is equally enthusiastic about history and literature, and is always willing to play a board game, cribbage, or backgammon.