# PO ID1 010: Can Zombies Do Math?

Reading List and Other Course Materials

September 1, 2011

## Books Everyone Will Read

There are four major texts and a writing guide for the course. You should be able to obtain copies of these from the Huntley Bookstore.

MATH  *The Mathematical Experience: The Study Edition* by Philip Davis, Reuben Hersh and Elena Anne Marchisotto. (This book henceforth will be denoted TME).

ZOMB  *Frankenstein* by Mary Shellley. Please get the Norton Critical Edition, because we will also read some of the classic and modern critiques of Shelley's work.

ZOMB  *I Am a Strange Loop* by Douglas Hofstadter. (This book henceforth will be denoted IAL)

MATH  *Logicomix: An Epic Search for Truth* by Apostolos Doxiadis (Author), Christos H. Papadimitriou (Author), Alecos Papadatos (Illustrator), Annie Di Donna (Illustrator).

 WRIT  *Pocket Reference for Writers* (which henceforth will be denoted PRW)

We will read large portions of these texts. You will be assigned specific sections of TME, IAL and PRW for every week.

- We will discuss *Logicomix* on Week 5. Please make sure to complete reading it by then. Keep in mind that at least one of your book reviews should refer to this text.

- We will discuss *Frankenstein* on Week 10. Please make sure to complete reading it by then. Keep in mind that at least one of your book reviews should refer to this text.

STUDENTS WILL ALSO BE EXPECTED TO REFER TO AND MAKE CONNECTIONS WITH THE SUMMER READING: *Never Let Me Go* by Kazuo Ishiguro.

## Video Playlist

Aside from the readings for the course there is (will eventually be) an extensive list of movies, video clips and other visual materials available for you in the SAKAI site for the course. Below are some notes about the movies available on the playlist already:

- 21 Grams (2003 - rated R) Crime-Drama-Thriller (one of the main characters is a mathematician; why does he have to be one? Byline: "A freak accident brings together a critically ill mathematician, a grieving mother and a born-again ex-con.")

- 28 Days Later

- Aaah! Zombies!!

- A Beautiful Mind (2001 - rated PG-13) Biography-Drama (the main character is the famous mathematician John Nash; playing the typical role of the crazy math genius. Byline: "After a brilliant but asocial mathematician accepts secret work in cryptography, his life takes a turn to the nightmarish.")

- Disturbing Behavior

- Fermat's Room (2007 - NR - Not Rated, Spanish with English subtitles) Mystery-Thriller (Mostly inoffensive, interesting movie about a few mathematicians locked up in a room with their egos and other problems. Byline: "Four mathematicians who do not know each other are invited by a mysterious host on the pretext of resolving a great enigma.")

- Hard Problems: The Road to the World's Toughest Math Contest

- I Walked with a Zombie

- MJ Thriller (1983 - rated PG) Short-Horror-Music (classic Michael Jackson video with zombies, there is much more to it than the video clip people see. Byline: "A night at the movies turns into a nightmare when Michael and his date are attacked by a hoard of bloody-thirsty zombies - only "Thriller" can save them now.")

- Night of the Living Dead (1968 - UR - UnRated) Horror-Mystery (classic zombie movie that started it all. If you can, you should see this for sure, as it is THE classic zombie movie. Byline: "A group of people hide from bloodthirsty zombies in a farmhouse.")

- Night of the Living Homeless (2007 - South Park Episode 7 from Season 11) (typically violent and cruel in most places, this is a parody of, obviously, Night of the Living Dead. Byline: "Ignoring the homeless in South Park becomes impossible when their numbers become overwhelming and their lust for spare change becomes insatiable.")

- Pi

- Rites of Love and Math (2010 - NR - Not Rated) Short-Drama (strong visuals of stylized sex, nudity and a suicide - directed and acted by Berkeley mathematician Edward Frenkel, caused much controversy, just as the movie it pays homage to: Yukiko-which was banned in certain places because it allegedly glorified suicide. The controversy around the newer movie was more focused on gender issues in mathematics. Byline: "Is there a mathematical formula for love without death?")

- Shaun of the Dead (2004 - R) Comedy-Horror (romantic comedy parodying several classic zombie movies. Byline: "A man decides to turn his moribund life around by winning back his ex-girlfriend, reconciling his relationship with his mother, and dealing with an entire community that has returned from the dead to eat the living.")

- Stand and Deliver (1988 - PG) Drama (inspired by the true story of a mathematics teacher. May provide some clues as to who is a mathematicain (a la the first day's video clip), and also to the place of math in our day. Byline: "The story of Jaime Escalante, a high school teacher who successfully inspired his dropout prone students to learn calculus.")

- Straw Dogs

- The Oxford Murders

- Tokyo Zombie

- White Zombie

Keep the following rules in mind:

*You are NOT required to watch all but you should select a few that you have not seen before. You will be encouraged (and sometimes required) to refer to some movies as we progress through the semester.*

*Please do NOT watch a movie if you think it might disturb you more than you can handle. Please do bring this up with me if you have concerns about this point.*

# Readings by week

## Week 1

**Short fiction**  Jakob Drud, "Meditation for the Dead", available online and also on SAKAI site.

**Followup Readings for Thursday**  Pages 1-12 of TME, Preface, Prologue and Chapter 1 of IAL, and the following:

- Sue VanHatten, "On Doing Mathematics", Journal of Humanistic Mathematics, Volume I, Issue 2 (July 2011), pages 61–69. Available at: `http://scholarship.claremont.edu/jhm/vol1/iss2/7/`

- Bernard Diederich, "On the Nature of Zombi Existence", *Caribbean Review*, Volume 12, Issue 3, pages 14–17, 43–46.

- Kette Thomas, "Haitian Zombie, Myth and Modern Identity", *Comparative Literature and Culture*, Volume 12, Issue 2 (June 2010) Article 12.

**Focus on Writing**  Sections 1, 4, and 8 from PRW.

## Week 2

**Short fiction**  Alice Munroe, "Too Much Happiness". Available at the SAKAI site.

**Poetry**  Mari-Lou Rowley. 2011. "Ode To Alan Turing" from: NumenRology: A Poetic Exploration of the Lives and Work of Famous Mathematicians". *The Journal of Humanistic Mathematics*, Volume I, Issue 2 (July 2011), pages 116–120. Available at: `http://scholarship.claremont.edu/jhm/vol1/iss2/14`

**Readings for Tuesday**  Chapters 2-4 of IAL and the following:

- Alan Turing, "Computing Machinery and Intelligence", Mind, The New Series, Volume 59 No. 236 (October 1950), pp.433-460.

- Daniel Dennett, "Can Machines Think?" and two postscripts, from Dennett's book *Brainchildren: Essays on Designing Minds*, pages 3–29.

**Readings for Thursday**  Pages 13-30 and 36-55 of TME, and the following:

- Vladimir Zorich, "Mathematics as language and method: (Why mathematics? Explanation mainly for non-mathematicians)".

**Focus on Writing**  Section 7 of PRW and the following:

- Anne Lamott, "Shitty First Drafts", from her *Bird by Bird*.

## Week 3

**Short fiction**  Isaac Asimov, "Robbie", from his story collection. Available at the SAKAI site.

**Poetry**  "Seeing Pine Trees" by Caleb Emmons, from the *Journal of Humanistic Mathematics*, Volume I, Issue 1 (January 2011), page 153. Available at: `http://scholarship.claremont.edu/jhm/vol1/iss1/11`

**Readings for Tuesday**  Pages 76-127 of TME and (TO BE DISCUSSED ON THURSDAY):

- Wade Davis, "The worldwide web of belief and ritual", TED video.
- Maria Popova, "What Does It Mean to Be Human? Primates, philosophers, and how subjectivity ensures the absolute truth of our existence", Brain Pickings, September September 27, 2010.

**Readings for Thursday**  Chapters, 6, 13-14 of IAL and the following:

- Peter Dendle, "Zombie as Barometer of Cultural Anxiety" in *Monsters and the Monstrous*, pages 45–57.
- Sarah Juliet Lauro and Karen Embry, "A Zombie Manifesto: The Nonhuman Condition in the Era of Advanced Capitaiism", *boundary 2*, Volume 35, Issue 1 (2008), pages 85–108.

**Focus on Writing**  Sections 6, 19 and 21b of PRW.

## Week 4

**Short fiction**  Alex Kasman, "The Eye Of The Beholder", from his "Reality Conditions".

**Poetry**  James Henle. 2011. "Is (Some) Mathematics Poetry?", from *The Journal of Humanistic Mathematics*, Volume I, Issue 1 (January 2011), pages 194–100. Available at: `http://scholarship.claremont.edu/jhm/vol1/iss1/7`

**Readings for Tuesday**  (TO BE DISCUSSED ON THURSDAY:) Chapters 18-19 of IAL and:

- Todd Moody, "Conversations with Zombies", in *Journal of Consciousness Studies*, Volume 1, Number 2 (1994), pages 196-200.
- Owen Flanagan and Thomas Polger, "Zombies and the Function of Consciousness", in *Journal of Consciousness Studies*, Volume 2, Number 4 (1995), pages 313-321.

**Readings for Thursday**  Chapter 22 of IAL and the following:

- David Dennett, "The Unimagined Preposterousness of Zombies", chapter 10 of Dennett's *Brainchildren*.

**Focus on Writing**  "Interviewing" and "Creating Good Interview and Survey Questions" from Purdue Online Writing Lab.

## Book Review Options on Mathematics

- Yoko Ogawa, *The Housekeeper and the Professor*

- Rudy Rucker, *Mathematicians in Love*

- Rebecca Goldstein, *The Mind-Body Problem*

- Edwin Abbot Abbot, *Flatland*

- John Green, *An Abundance of Katherines*

- Gaurav Suri and Hartosh Singh Bal, *A Certain Ambiguity*

- Susan Choi, *A Person of Interest*

- Paul Hoffman, *The Man Who Loved Only Numbers* [a biography of Paul Erdös]

- Robert Kanigel, *The Man Who Knew Infinity* [a biography of Ramanujan]

Students will pick one of the above books to write a 750-word book review. They will also make use of the comic novel *Logicomix* as they work through the various themes of the course.

## Book Review Options on Zombies and Other SubHumans

- Karel Čapek, *R.U.R. (Rossums Universal Robots)*, available online at `http://ebooks.adelaide.edu.au/c/capek/karel/rur/`

- Robert Heinlein, *The Moon Is a Harsh Mistress*

- Daniel H. Wilson, *Robocalypse*

- Daniel H. Wilson, *How to Survive a Robot Uprising*

- Max Brooks, *The Zombie Survival Guide*

- John Austin, *So Now You're a Zombie*

- J. L. Bourne, *Day by Day Armageddon*

- Max Brooks, *World War Z*

Students will pick one of the above books to write a 750-word book review. They will also make use of the other two novels in this genre that they have all read (*Frankenstein* by Shelley and *Never Let Me Go* by Ishiguro) as they work through the various themes of the course.

**As part of the course learning contract, students have committed to picking a text that they are not familiar with. If a student has read all of the items listed above, they should discuss this matter with the professor.**