

**(un)Common Reads – “Mr. Tompkins in Paperback”
IDH 2930**

Class Periods: Wednesday, Period 10 (5:10 – 6:00 pm)

Class Location: Online

Academic Term: Fall 2020

Instructor

Prof. Charles Hages

Assistant Professor, Chemical Engineering Department, University of Florida

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Office hours: TBD

Web site: UF course Canvas web site

Course Description

Mr. Tompkins in Paperback is a book published in 1965 – which is a compilation of essays originally published in 1941 and 1944 as “Mr. Tompkins in Wonderland” and “Mr. Tompkins Explores the Atom”. They were written by George Gamow, a famous physicist with a gift for whimsy. Gamow pioneered the practice of making complex or abstract scientific concepts accessible to the layman. In this work, Gamow describes scientific concepts (such as the speed of light, the gravitational constant, or Planck’s constant) through a series of entertaining adventures involving the character Mr. Tompkins – who falls asleep during a series of scientific lectures. This book is for non-scientists and scientists alike.

Mr. Tompkins in Paperback exemplifies a compelling lesson in the power of storytelling to reach an educational audience. Complex scientific ideas are presented in an entertaining way as opposed to through traditional textbook-based techniques. This work is also responsible for a generation of young minds (mostly in the 40’s and 50’s) being drawn towards an interest in science, a legacy worth preserving. In this course, weekly discussions will be used to provide context to the concepts introduced by Mr. Tompkins. Students will also develop their own story to explain a difficult or abstract concept of their choice.

Credit Hours: 1

Required Text:

Gamow, George. “Mr. Tompkins in Paperback”. Cambridge University Press, reprint (2012).

ISBN: 9781107604681

This book may or may not also be found online (PDF) at:

<http://arvindguptatoys.com/arvindgupta/tompkins.pdf>

Course Schedule (Tentative)

The course will proceed according to the following tentative schedule. Updates will be posted in the Canvas Electronic Course Management site for the course.

| | |
|--|-------------------------------------|
| Week 1: Intro | (Homework: Read chapters 1 & 2) |
| Week 2: Discussion | (Homework: Read chapters 3 & 4) |
| Chapter 1 – City Speed Limit | |
| Chapter 2 – The Professor’s Lecture on Relativity which caused Mt Tompkins’s dream | |
| Week 3: Discussion | (Homework: Read chapter 5) |
| Chapter 3 – Mr Tompkins takes a holiday | |
| Chapter 4 – The Professor’s Lecture on Curved Space, Gravity and the Universe | |
| Week 4: Discussion | (Homework: Read chapter 6) |
| Chapter 5 – The Pulsating Universe | |
| Week 5: Discussion | (Homework: Read chapter 7) |
| Chapter 6 – Cosmic Opera | |
| Week 6: Discussion | (Homework: Read chapter 8) |
| Chapter 7 – Quantum Billiards | |
| Week 7: Discussion | (Homework: Read chapter 9) |
| Chapter 8 – Quantum Jungles | |
| Week 8: Discussion | (Homework: Read chapters 10 & 10.5) |
| Chapter 9 – Maxwell’s Deamon | |
| Week 9: Discussion | (Homework: Read chapter 12) |
| Chapter 10 – The Gay Tribe of Electrons | |
| Chapter 10.5 – A Part of the Previous Lecture which Mr Tompkin slept through | |
| Week 10: Discussion | (Homework: Read chapter 13) |
| Chapter 12 – Inside the Nucleus | |
| Writing Topic Due | |
| Week 11: Veterans Day Holiday | |
| Week 12: Discussion | (Homework: Read chapters 14) |
| Chapter 13 – The Woodcarver | |
| Week 13: Thanksgiving Holiday | |
| Week 14: Discussion | (Homework: Read chapter 15) |
| Chapter 14 – Holes in Nothing | |
| Week 15: Discussion | |
| Chapter 15 – Mt Tompkins Tastes a Japanese Meal | |

Assignments

- **Reading:** Please read the indicated chapter by the Monday prior to each lecture. This course is based around a book, so reading is essential.
- **Participation:** Participation grading is based off attendance, participation during lecture discussion, and turning in the following chapter reflection prior to us meeting that week.

Chapter Reflection:

Please submit a *simple* 2 paragraph chapter reflection through Canvas anytime by Monday on weeks that we meet. The first paragraph should highlight something you enjoyed about the reading; the second paragraph should highlight a concept you want to discuss further or would like to understand better in the lecture. The purpose of this assignment is not to burden you or test your writing skills – your responses will help me prepare relevant discussion topics for the lecture and be able to quantify your participation so your grade does not have to depend solely on the final assignment.

- **Final Writing Assignment:** For the final, you will turn in an essay following the style of George Gamow. The purpose of this assignment is to have you practice being able to explain a difficult concept through storytelling. Topic of your choice will be due on November 4th for my approval.

Attendance Policy, Class Expectations, and Make-Up Policy

- As this is a discussion course with very little face time, attendance of lectures is required. One unexcused absence for whatever reason is allowed. Additional absences can affect your participation grade.
- Course lectures will occur over Zoom, with the link available in the Canvas page for this course. Please enable cameras for the lectures so we can re-create a face-to-face discussion course as best as possible. In case of privacy concerns, I will not be recording any of these lectures.
- Make-up assignments and excused absences can only be considered for those students who missed due to an acceptable reason (illness, family emergencies, military obligation, religious holidays, participation in official university activities, etc.) as listed in the undergraduate catalog. It is required that, whenever possible the student notifies the instructor about the situation in advance.

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Evaluation of Grades

| Assignment | Percentage of Final Grade |
|------------------|---------------------------|
| Participation | 50% |
| Final Assignment | 50% |

More information on UF grading policy may be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Communication

- The preferred method of communication with the instructor is via a message through Canvas.
- Public messages to the class regarding lecture material can also be posted on Canvas.
- Technical issues can be resolved via the helpdesk website or by calling 352-392-4357

<https://helpdesk.ufl.edu/>

Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://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 professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

Student Privacy

Online lectures will not be recorded. There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the [Office of Title IX Compliance](mailto:title-ix@ufl.edu), located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://care.dso.ufl.edu>.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.