

Astronomy ASTA01

Introduction to Astronomy and Astrophysics I: The Sun and Planets

Fall 2016

Instructor: Prof. Kristen Menou
Office: SW517A, Science Wing
Phone: 416-287-5060 (office)
E-mail: [kmenou // at\utoronto.ca](mailto:kmenou@at.utoronto.ca)
Web page: <http://individual.utoronto.ca/kmenou/ASTA01.html>
Office Hours: Tuesday, 2-3 pm and by appointment

LECTURES - TIME & PLACE:

Tuesdays, 10am-11am, SY110
Thursdays, 10am-11am, SY110

DESCRIPTION:

The solar system has been thoroughly explored by astronomical instruments on Earth and in space. In addition, fundamental and exciting discoveries of the last two decades provide us with the basic knowledge about the existence and the orbital architecture of a large variety of planets in extrasolar planetary systems (i.e., around stars other than our Sun). This course will introduce you to both solar and extrasolar systems. This course considers astronomical bodies and their origin and evolution, as well as basic parts of physics, some chemistry, etc., required to observe them and understand their structure. As part of the history of the subject, we give an overview of the development of astronomy from ancient times to the age of modern Newtonian science. The course is suitable for both science and science students.

CONTACTING THE TEACHERS:

Head Teaching Assistant: Ryan Cloutier, email: cloutier\@astro.utoronto.ca [change _/AT to @]

Obtain the contact information from your section's TA, and send him/her email about the course or tutorial materials.

Email the head TA with questions that your section's TA cannot answer, and Prof. Menou as a last resort

Prof. Menou Office Hours: Tuesday, 3pm and by appointment

TUTORIALS:

Tutorials start on September 11.

7 sections as follows:

TUT0001	TH	12:00	13:00	BV 361
TUT0002	TH	13:00	14:00	BV 361
TUT0003	TH	14:00	15:00	BV 361
TUT0004	TH	15:00	16:00	IC 320
TUT0005	TH	09:00	10:00	AA 209
TUT0006	TH	11:00	12:00	AA 206
TUT0007	TH	16:00	17:00	AC 334

Your attendance at lectures and tutorials is expected. The lectures follow the textbook, but include some additional information, comments and perspectives.

TEXTBOOK (REQUIRED):

Planetary science is developing very quickly. We are fortunate to have a ~~brand~~ ^{brand} new, fresh textbook taking into account some of the most recent discoveries:

"ASTRO, 2ND Canadian edition" by Shohini Ghose; Vesna Milosevic-Zeljekar; L. Arthur Read

ISBN-10: 0-17-6532145

ISBN-13: 9780-17-6532147

Our UTSC bookstore has the packages, which include (at modest extra cost) the access to electronic resource and learning site of the publisher called CNOW (required). This site will allow you to do the weekly quizzes. If you want to buy the book somewhere else that's fine, please talk to the bookstore staff and they can help you purchase the access to CNOW (necessary for the class) separately. It may be much more expensive than buying the package though.

CNOW

Intro to this online system will be provided by Barbara March, Nelson Publ. representative. Note that you're asked to include student number in your id/registration and use a special format of the name (see below), or else we may not recognize you & may not give you proper credit.

Class Key: EX7FG4PL46YPJ9

QUIZZES

Online quizzes will be available from the second week of the course. There will be one or two

(up to 4 pages normal size) of notes are allowed. This way, you won't have to memorize formulae or data. Also, the text of each exam will have a final section listing the physical and astronomical constants that may (or may not) be helpful in solving the problems. (Most will not be used as part of the solutions.)

What material is required knowledge for the exam? In general, the textbook and the lecture notes (slides), plus the skills developed in tutorials and written assignments. The midterm covers everything up to the midterm. Course slides will be distributed through Blackboard.

Marking scheme of the course

Max. score = 100%, midterm = 20%, final exam = 44% (20% problems, 24% quiz), 4 sets of homework assignments = 24% (6% each), quiz = 12%.

Grading is standard: minimum percentage marks for letter grades (for orientation only, since grades are reported as percentages) A+ 90%, A 85%, B+ 77%, B 73%, C+ 67%, C 63%, D+ 57%, D 53%, F 49% or less.

TUTORIALS

Tutorials and the Teaching Assistants (TAs) are your friends! Use this resource.

- Week 6: The Origin of the Solar System (Chapter 12)
- Week 7: The Origin of the Solar System (Chapter 12)
- Week 8: The Origin of the Solar System (Chapter 12)
- Week 9: Extrasolar Systems (Chapter 12)
- Week 10: Comparative Planetology of the Terrestrial Planets (Chapter 13)
- Week 11: The Outer Solar System (Chapter 14)
- Week 12: Outer Solar System and Life on Other Worlds (Chapter 14 & 15)