Memorial's *Kickstart* program, June 27 - August 6, 2022:

It is an opportunity for high school/secondary students who received an early offer or final acceptance to Memorial to take a university course prior to the start of the fall semester.

Current students MUN can register for a *Kickstart* course as well.

**You can now take PHYS 2150 in six weeks, fully online!**

The per-course tuition for Newfoundland and Labrador residents is $255, plus the cost of the textbook.

See [Kickstart your degree 2022 | Undergraduate Admissions and Programs | Memorial University of Newfoundland (mun.ca)](https://mun.ca)
The course and the final exam are fully online:
Required PHYS2150 textbook:

To register for Pearson’s Mastering site:

Go to https://mlm.pearson.com/enrollment/barkanova35252.
1. Sign in with your Pearson student account or create your account.
2. Select any available access option, if asked.
   • Enter a prepaid access code that came with your textbook or from the bookstore.
   • Buy instant access using a credit card or PayPal.
   • Select Get temporary access without payment for 14 days.
3. Select Go to my course.
4. Select “PHYS 2150 Summer 2022” from My Courses.
5. If you contact Pearson Support, give them the course ID: barkanova35252

To sign in later:

1. Sign in with the same Pearson account you used before.
2. Select “PHYS 2150 Summer 2022” from My Courses.
FIGURE 6.7 Sun and Planets

Relative sizes of the planets and our Sun, drawn to scale. Notice how much larger the jovian planets are than Earth and the other terrestrial planets, and how much larger still is the Sun. Explaining this planetary dichotomy is an important goal of comparative planetology, although by no means the only one.
6.4 Terrestrial and Jovian Planets

On large scales, the solar system presents us with a sense of orderly motion. The planets move nearly in a plane, on almost concentric (and nearly circular) elliptical paths, in the same direction around the Sun, at steadily increasing orbital intervals. Although the individual details of the planets are much less regular, their overall properties allow a natural division into two broad classes.

Planetary Properties

Figure 6.7 compares the planets with one another and with the Sun. A clear distinction can be drawn between the inner and the outer members of our planetary system based on densities and other physical properties. The inner planets—Mercury, Venus, Earth, and Mars—are small, dense, and solid. The outer worlds—Jupiter, Saturn, Uranus, and Neptune
Engaging Homework at MyLab & Mastering | Pearson site, including interactive videos:

PHYS 2150 Summer 2022

Ranking Task: Orbital Distance, Mass, and Radius of Planets

The following images show six objects in our solar system. Rank the objects from left to right based on their average distance from the Sun, from farthest to closest. (Not to scale.)

Saturn  Mars  Mercury  Jupiter  Pluto  Earth
**Grading Scheme:** Assignments - 60%, Course Project - 20%, Final Exam - 20%

**Assignments:** at MyLab & Mastering | Pearson (same site as your required eText)
One assignment per chapter, 30-60min each. See the course schedule for deadlines. Interactive – multiple-choice, true/false, ranking tasks, matching words, numerical problems etc. Immediate feedback.

_Do not forget - the whole course is six weeks, so plan your time accordingly._
Allow at least three hours per chapter.

**Course Project:** See “Phys2150_Course_Project_Summer2022.docx” or “Phys2150_Course_Project_Summer2022.pdf” on the Brightspace.
You can work in a group or by yourself – your choice. Install Stellarium, study sky maps, locate stars and planets in the night sky, record your observations. Submit on the Brightspace.

**Final Exam:** on the Brightspace, open-book, multiple-choice, time TBA
# Course Schedule Summer 2022:

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates 2022</th>
<th>Chapters</th>
<th>Homework</th>
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</table>
| Week 1   | June 27 – July 3 | Chapter 1: Charting the Heavens  
Chapter 2: The Copernican Revolution  
Start Course Project (see Brightspace) | Intro to MA  
CH 01 HW  
CH 02 HW |
| Week 2   | July 4 - 10   | Chapter 3: Radiation  
Chapter 4: Spectroscopy | CH 03 HW  
CH 04 HW |
| Week 3   | July 11 - 17  | Chapter 5: Telescopes  
Chapter 6: The Solar System | CH 05 HW  
CH 06 HW |
| Week 4   | July 18 - 24  | Chapter 7: Earth  
Chapter 8: The Moon and Mercury  
Submit Course Project (via Brightspace) | CH 07 HW  
CH 08 HW |
| Week 5   | July 25 - 31  | Chapter 9: Venus  
Chapter 10: Mars  
Chapter 11: Jupiter  
Chapter 12: Saturn | CH 09 HW  
CH 10 HW  
CH 11 HW  
CH 12 HW |
| Week 6   | August 1 - 7  | Chapter 13: Uranus, Neptune, and Pluto  
Chapter 14: Solar System Debris  
Chapter 15: The Formation of Planetary System | CH 13 HW  
CH 14 HW  
CH 15 HW |
| Week 7   | August 8 - 13 | Final Exam – Online, Date TBA | |