


The Foundations of Astronomy (Physics 2150)

Fall 2020

Professor	Svetlana Barkanova
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Office Location	n/a
Office Hours	By email, anytime
Office Phone	n/a
Prerequisites	NONE
Grading	Assignments: 40% Course Project: 20% Final Exam: 40%
Text	“Mastering Astronomy” with “Astronomy Today” eBook (by Chaisson and McMillan, Prentice - Hall, 9th ed.) MA Course Name: Phys 2150 Fall 2020 MA Course ID: barkanova69106



Physics 2150 (“The Foundations of Astronomy”) is a general introduction to astronomy, emphasizing the scientific method, basic physics, night sky and objects in our solar system. Topics include space science, telescopes, spectroscopy, atomic structure, the formation and evolution of planetary systems, and the detection and properties of exoplanets.

The major learning goals include solid understanding of physical principles governing our universe and developing a critical and quantitative intellectual style. The students are expected to develop an appreciation for the pleasure of intellectual investigation and the ability to search for, verify, interpret, and communicate scientific information.

All members of the Memorial University of Newfoundland community, including students, faculty, and staff, shall treat others with respect and fairness, be responsible and honest, and uphold the highest standards of academic integrity. By submitting work for this course, the students state that all work is entirely their own and does not violate [Memorial University's Academic Integrity policy](#).

If you have a disability or other condition that requires special arrangement or consideration, please feel free to discuss this with staff in the Learning Centre (Student Services), phone 637-6268, e-mail studentservices@grenfell.mun.ca - in a confidential setting. More information on the University's policy is available at <http://www.grenfell.mun.ca/student-services/disability-services>.

Course Schedule

Date	Class	Homework
Week 1 Sept. 8-12	Introduction. Register for Mastering Astronomy. Install planetarium software (such as Stellarium). Form your group for Course Project.	HA#0 (practice, no credit)
Week 2 Sept. 13-19	Chapter 1: Charting the Heavens	HA#1
Week 3 Sept. 20-26	Chapter 2: The Copernican Revolution	HA#2
Week 4 Sept. 27 – Oct. 3	Chapter 3: Radiation Chapter 4: Spectroscopy	HA#3
Week 5 Oct. 4 - 10	Chapter 5: Telescopes	HA#4
Week 6 Oct. 11-17	Reading Week	Course Project
Week 7 Oct. 18 - 24	Chapter 6: The Solar System	HA#5
Week 8 Oct. 25 - 31	Chapter 7: Earth Chapter 8: The Moon and Mercury	HA#6
Week 9 Nov. 1 - 7	Chapter 9: Venus Chapter 10: Mars	HA#7
Week 10 Nov. 8 - 14	Chapter 11: Jupiter Chapter 12: Saturn	HA#8
Week 11 Nov. 15 - 21	Chapter 13: Uranus, Neptune, and Pluto Chapter 14: Solar System Debris	HA#9
Week 12 Nov. 22 - 28	Chapter 15: The Formation of Planetary System	HA#10
Week 13 Nov. 29 – Dec. 5	Review and Exam Preparation	
TBA	Final Exam	

To register for Mastering Astronomy homework platform:

1. Go to www.pearson.com/mastering
2. Under Register, select Student.
3. Confirm you have the information needed, then select OK! Register now.
4. Enter your instructor's course ID and click Continue.
5. Enter your existing Pearson account username and password to Sign In. You have an account if you have ever used a MyLab or Mastering product. If you don't have an account, select Create and complete the required fields.
6. Select an access option. Enter the access code that came with your textbook or that you purchased separately from the bookstore. » If available for your course, • Buy access using a credit card or PayPal. • Get temporary access.
7. From the You're Done! page, select Go To My Courses.
8. On the My Courses page, select the course name to start your work.

“Mastering Astronomy” provides students with two learning systems in one: the richest self-study media available and the ability to participate in online assignments created by their instructors.

Here is what students say:

“My exam scores were significantly higher after using MasteringAstronomy and I understand the material more fully.” *Heather Barnhart*

“The visuals and interactivity in MasteringAstronomy make it very easy to learn the material.”
Adam Rousselle

“MasteringAstronomy makes learning easy. It's fun and interactive.” *Sarah Smith*

“In MasteringAstronomy, it's nice to have the freedom to make mistakes and learn from those mistakes immediately – without waiting for the assignment to be graded and returned.” *Lisa Clark*

“I like how the immediate feedback in MasteringAstronomy actually tells me why my answer is wrong. This makes learning and understanding the right answers much easier.” *Reece Cook*

“I like the hints and interactivity MasteringAstronomy offers – it's like having a second teacher.”
Bo Vernon

From www.masteringastronomy.com

Some useful links:

www.skymaps.com - Sky maps (star charts) for sky-watchers, educators and publishers. The Evening Sky Map (PDF) for each month, free.

stellarium.org - A planetarium software that shows exactly what you see when you look up at the stars. Free and easy to use.