

## PHY241

## UNIVERSITY PHYSICS III

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity.

These sites were selected to aid in the study of mechanics and thermodynamics at the college and university level. We tried to stay close to the Welcome page for each **website** so it would not be lost easily as the semester changes.

**text : Fundamentals of Physics 10th Edition**

Links	Date	Existing or Replacement Site	Description
<b>Cool Links</b>			
The National Institute of Standards & Technology	May-11	<a href="http://www.nist.gov/index.html">http://www.nist.gov/index.html</a>	The National Institute of Standards & Technology A great resource for standards and recently published information. There are links to take you can where you want to go.
Physics Resources	May-11	<a href="http://www.physlink.com/">http://www.physlink.com/</a>	Physics Resources A comprehensive resource for physics jokes, journals, employment, and recently published information. There is also a question and answer site. There are links to take you the national labs. This site is heavy on graphics.
Physics Resources from U. Penn	May-11	<a href="https://www.physics.upenn.edu/resources/physics-astronomy-links">https://www.physics.upenn.edu/resources/physics-astronomy-links</a>	Physics Resources from U. Penn. A comprehensive resource for physics from the University of Penn. This is a great site. There are links to take you the national labs. This site is heavy on graphics.
Physics Linkage Page Univervercity of N. C.	May-11	<a href="http://physics.unc.edu/research-pages/">http://physics.unc.edu/research-pages/</a>	Physics Link Page
Physics Linkage Page Eastern Illinois University	May-11	<a href="http://www.eiu.edu/~physics/important_links.php">http://www.eiu.edu/~physics/important_links.php</a>	Physics Link Page
Physics Site with Tutorials	May-11	<a href="http://www.dl.ket.org/physics/">http://www.dl.ket.org/physics/</a>	
Physics Tutorials	May-11	<a href="http://www.physicsclassroom.com/">http://www.physicsclassroom.com/</a>	Physics Tutorials
Online Physics Courses	May-11	<a href="http://academicearth.org/subjects/physics">http://academicearth.org/subjects/physics</a>	
Sites with Multiple Course Material			
College level Physics	May-11	<a href="http://theory.uwinnipeg.ca/physics/index.html">http://theory.uwinnipeg.ca/physics/index.html</a>	College level Physics A algebra/trig based set of lectures beginning with motion and ending with nuclear physics. Each section gives the basic information with no frills.
University level Physics (Mechanics & Waves)	May-11	<a href="http://web.archive.org/web/20090319022750/http://dept.physics.upenn.edu/courses/gladnev/phys150/">http://web.archive.org/web/20090319022750/http://dept.physics.upenn.edu/courses/gladnev/phys150/</a>	University level Physics (Mechanics & Waves) A series of html lectures
Kahn Academy Physics Course	May-11	<a href="https://www.khanacademy.org/science/physics">https://www.khanacademy.org/science/physics</a>	Khan Academy offers practice exercises, instructional videos, and a personalized learning dashboard that empower learners to study at their own pace in and outside of the classroom. We've also partnered with institutions like NASA, The Museum of Modern Art, The California Academy of Sciences, and MIT to offer specialized content.
Energy Definitions	May-11	<a href="http://physics.bu.edu/~duffy/phy105/notes/Energy.html">http://physics.bu.edu/~duffy/phy105/notes/Energy.html</a>	
Mechanics Course from the University of Boston	May-11	<a href="http://www.unb.ca/fredericton/science/depts/physics/">http://www.unb.ca/fredericton/science/depts/physics/</a>	Mechanics Course from the University of Boston This is a complete set of notes on mechanics. There are over thirty sets of notes in this site. The site is easy to use and read.
Mechanics Course from the University of Penn	May-11	<a href="http://web.archive.org/web/20090319022750/http://dept.physics.upenn.edu/courses/gladnev/phys150/">http://web.archive.org/web/20090319022750/http://dept.physics.upenn.edu/courses/gladnev/phys150/</a>	Mechanics Course from the University of Penn. This is a complete set of notes on mechanics. There are thirty four sets of notes in this site. The site is informative and easy to read. However, there is no content.html to tell you what each lecture is. If you go to the parent directory, you will find an interactive textbook that looks good but is hard to access.
Engineering Mechanics Course from the Stanford	May-11	<a href="http://micro.stanford.edu/~caiwei/me334/">http://micro.stanford.edu/~caiwei/me334/</a>	Engineering Mechanics Course from the Stanford. This is a complete set of lectures notes on mechanics.
Free and Commercial Physics help site	May-11	<a href="http://www.splung.com/">http://www.splung.com/</a>	Free and Commercial Physics help site
Cyber Professor for Physics	May-11	<a href="http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html">http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html</a>	Linked hyperlink pages on physics with help
<b>CHAPTER 16 &amp; 17 Waves Motion and Sound</b>		<b>PHY115</b>	
Cyber Professor for Physics	May-11	<a href="http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html">http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html</a>	Linked hyperlink pages on physics with help
Wave propagation	May-11	<a href="http://www.earth.northwestern.edu/people/seth/demos/STRING/string.html">http://www.earth.northwestern.edu/people/seth/demos/STRING/string.html</a>	
Waves	May-11	<a href="http://zonalandeducation.com/mstm/physics/waves/waves.html">http://zonalandeducation.com/mstm/physics/waves/waves.html</a>	
Long wavelengths v Short wavelengths	May-11	<a href="http://www.applet-magic.com/atmostemp2.htm">http://www.applet-magic.com/atmostemp2.htm</a>	
<b>CHAPTER 18 - 20: Heat, Temperature and Thermodynamics</b>		<b>PHY115</b>	
Cyber Professor for Physics	May-11	<a href="http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html">http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html</a>	Linked hyperlink pages on physics with help
ASU Library's Thermodynamics Site	May-11	<a href="http://engineering.asu.edu/research/programs/mech/transport-phenomena-thermodynamics-and-energy">http://engineering.asu.edu/research/programs/mech/transport-phenomena-thermodynamics-and-energy</a>	
Basics of Thermodynamics	May-11	<a href="http://en.wikiversity.org/wiki/Basic_thermodynamics">http://en.wikiversity.org/wiki/Basic_thermodynamics</a>	
Thermodynamics A Course	May-11	<a href="http://web.mit.edu/16.unified/www/FALL/thermodynamics/">http://web.mit.edu/16.unified/www/FALL/thermodynamics/</a>	
<b>CHAPTER 33,34 : EM waves &amp; Optics</b>		<b>PHY116</b>	
<a href="#">Electromagnetic Waves - Good source of information, and equations. This site has information about Maxwell's equations and the idea of electromagnetic waves that are related to the oscillating charge. Links to many other related Physics topics. No graphic</a>	May-11	<a href="http://web.archive.org/web/20001023054030/http://maxwell.byu.edu/~spencerr/websumm122/node115">http://web.archive.org/web/20001023054030/http://maxwell.byu.edu/~spencerr/websumm122/node115</a>	Electromagnetic Waves - Good source of information, and equations. This site has information about Maxwell's equations and the idea of electromagnetic waves that are related to the oscillating charge. Links to many other related Physics topics. No graphics.
<a href="#">Lenses for Dummies - A simple web site about lenses. It is a "plane jane" type of web site written in black and white, probably intentionally to keep it simple. The site discusses concave, convex, and flat lenses, diverging and converging, real and virtual images and objects, and telescopes.</a>	May-11	<a href="http://www.lhup.edu/~dsimane/scenario/lenses.htm">http://www.lhup.edu/~dsimane/scenario/lenses.htm</a>	Lenses for Dummies - A simple web site about lenses. It is a "plane jane" type of web site written in black and white, probably intentionally to keep it simple. The site discusses concave, convex, and flat lenses, diverging and converging, real and virtual images and objects, and telescopes.
Hyperphysics on EM waves	May-11	<a href="http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html">http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html</a>	

Lectures on EM Waves	May-11	<a href="http://web.archive.org/web/20070901170814/http://www.physics.upenn.edu/courses/gladney/phys151/lectures/">http://web.archive.org/web/20070901170814/http://www.physics.upenn.edu/courses/gladney/phys151/lectures/</a>	
<b>CHAPTER 35,36 Interference &amp; Diffraction</b>		<b>PHY116</b>	
Cyber Professor for Physics	May-11	<a href="http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html">http://hyperphysics.phy-astr.gsu.edu/hbase/hframe.html</a>	Linked hyperlink pages on physics with help
Diffraction and Interference Lectures	May-11	<a href="http://web.archive.org/web/20070901170814/http://www.physics.upenn.edu/courses/gladney/phys151/lectures/">http://web.archive.org/web/20070901170814/http://www.physics.upenn.edu/courses/gladney/phys151/lectures/</a>	
Intro college physics web site(all subjects)	May-11	<a href="http://theory.uwinnipeg.ca/physics/index.html">http://theory.uwinnipeg.ca/physics/index.html</a>	
<b>CHAPTER 37: Special Relativity</b>		<b>PHY116</b>	
Special Relativity	May-11	<a href="http://academicearth.org/physics/">http://academicearth.org/physics/</a>	
Special Relativity	May-11	<a href="http://web.archive.org/web/20051124034141/http://www2.slac.stanford.edu/vvc/theory/relativity.html">http://web.archive.org/web/20051124034141/http://www2.slac.stanford.edu/vvc/theory/relativity.html</a>	
<b>CHAPTER 38: Photons &amp; Matter Waves</b>			
<b>CHAPTER 39: More About Matter Waves</b>			
<b>CHAPTER 40: All About Atoms</b>			
<b>CHAPTER 41: Conduction of Electricity in solids</b>			
<b>CHAPTER 42: Nuclear Physics</b>			
<b>CHAPTER 43: Energy from the Nucleus</b>			
<b>CHAPTER 44: Quarks, Leptons &amp; The Big Bang</b>			
<a href="http://web.archive.org/web/20100703054120/http://www.physics.upenn.edu/courses/gladney/">http://web.archive.org/web/20100703054120/http://www.physics.upenn.edu/courses/gladney/</a>		found this site for gladney	
<a href="http://web.archive.org/web/20120830150932/http://www.physics.upenn.edu/courses/PHY116/">http://web.archive.org/web/20120830150932/http://www.physics.upenn.edu/courses/PHY116/</a>		PHY116 links	
<a href="http://academicearth.org/physics/">http://academicearth.org/physics/</a>		Courses for physics	