

Course Change Request

Date Submitted: 04/18/19 11:23 am

Viewing: **PHYS 332 : Solar Cells**

Last approved: 04/02/19 4:28 am

Last edit: 04/19/19 1:29 pm

Changes proposed by: prubin

Catalog Pages referencing this course [Department of Physics and Astronomy](#)
[Physics \(PHYS\)](#)

Programs referencing this course [RNRG: Renewable Energy Interdisciplinary Minor](#)

In Workflow

1. **PHYS UG Committee**
2. **PHYS Chair**
3. **SC Curriculum Committee**
4. SC Associate Dean
5. Assoc Provost-Undergraduate
6. Registrar-Courses
7. Banner

Select modification type:

Substantial

Approval Path

1. 05/15/19 1:03 pm
Philip Rubin
(prubin): Approved for PHYS UG Committee
2. 05/15/19 4:39 pm
Paul So (paso): Approved for PHYS Chair

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2019

Subject Code: PHYS - Physics

Course Number: 332

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Solar Cells

Banner Title: Solar Cells

Will section titles vary by semester? No

Credits: 3

Schedule Type: Lecture

Hours of Lecture or Seminar per week: 3

Repeatable: May be only taken once for credit, limited to 3 attempts (N3)

Max Allowable Credits: 9

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) /

~~Required prerequisites:~~ ((PHYS PHYS-260 or PHYS 270), and PHYS 261), or (PHYS 245 and PHYS 246). 261.

History

1. Aug 25, 2017 by pchampan
2. Apr 2, 2019 by Gregory Craft (gcraft)

Corequisite(s)
(Updates only):

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(	Course/Test Code	Min Grade/Score	Academic Level	)	Concurrency?
	(	PHYS 260	C	UG		
And		PHYS 261	C	UG)	
Or	(	PHYS 245	C	UG		
And		PHYS 246	C	UG)	

Registration
Restrictions
(Updates only):

Registrar's Office Use Only - Registration Restrictions:

- Field(s) of Study:
- Class(es):
- Level(s):
- Degree(s):
- School(s):

Catalog Description: Covers the physics of solar cells, basics of semiconductors, pn junctions, basic structure of solar cells, the latest advances in solar cell materials, and concepts for improving the efficiency of solar cells. Solar cell design based on silicon, copper indium gallium selenide, gallium arsenide, organic solar cells, dye-sensitized solar cells, quantum dots, and nanowires will also be reviewed.

Justification: PHYS 260 and 270 are equivalent.

Does this course cover material which crosses into another department? No

Learning Outcomes:

Attach Syllabus

Additional Attachments

Specialized Course Categories: Mason Impact

Application for Mason Impact

Select the requested Research/Scholarship designation:

Scholarly Inquiry (RI)

Scholarly Inquiry (RI)

Select any additional SaS learning outcomes which the course meets:

Appropriately analyze scholarly evidence
Choose an appropriate research method for scholarly inquiry
Distinguish between personal beliefs and evidence
Explain how knowledge is situated and shared in relevant scholarly contexts
Explain how scholarly inquiry has value to society
Gather and evaluate evidence appropriate to the inquiry
Take responsibility for creating and executing an original scholarly or creative project

Attach Curriculum Map [The designation for the course was previously approved.pdf](#)

**Additional
Comments:**

**Reviewer
Comments**

Key: 12529