Program Change Request

Date Submitted: 11/24/20 4:36 pm

Viewing: **RNRG : Renewable Energy Interdisciplinary Minor**

Last approved: 03/16/20 10:45 am

Last edit: 11/24/20 4:36 pm

Changes proposed by: prubin

**Catalog Pages
Using this Program**
[Renewable Energy Interdisciplinary Minor](#)

In Workflow

1. **Registrar-Programs:Workflow Review**
2. **PHYS UG Committee**
3. **PHYS Chair**
4. **SC Curriculum Committee**
5. SC Associate Dean
6. SC CAT Editor
7. Assoc Provost-Undergraduate
8. Registrar-Programs

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

     No

Effective Catalog: 2020-2021

Program Level: Undergraduate

Program Type: Minor

Title:
   Renewable Energy Interdisciplinary Minor

Banner Title: Renewable Energy Interdiscipl

Registrar's Office Use Only – Program Start Term

Registrar/OAPI Use Only – SACSCOC Status

College/School: College of Science

Department / Academic Unit: Physics & Astronomy

Jointly Owned Program?   No

Justification

Approval Path

1. 04/27/20 10:28 am
Tory Sarro (vsarro): Approved for Registrar-Programs:Workflow Review
2. 05/13/20 9:34 am
Philip Rubin (prubin): Approved for PHYS UG Committee
3. 05/13/20 11:05 am
Paul So (paso): Approved for PHYS Chair
4. 08/25/20 10:16 am
Jennifer Bazaz Gettys (jbazaz): Rollback to Initiator

5. 09/29/20 11:56 am Tory Sarro (vsarro): Approved for Registrar-Programs:Workflow Review

6. 11/01/20 1:54 pm Philip Rubin (prubin): Approved for PHYS UG Committee

7. 11/01/20 2:31 pm Paul So (paso): Approved for PHYS Chair

8. 11/24/20 11:59 am Jennifer Bazaz Gettys (jbazaz): Rollback to Initiator

9. 11/30/20 9:01 am Tory Sarro (vsarro): Approved for Registrar-Programs:Workflow Review

10. 12/03/20 6:59 pm Philip Rubin (prubin): Approved for PHYS UG Committee

11. 12/04/20 1:19 am Paul So (paso): Approved for PHYS Chair

History

1. Nov 14, 2017 by clmig-jwehrheim

2. Feb 22, 2018 by Rebekah Zacharias

3. Feb 3, 2019 by
   Philip Rubin
   (prubin)
4. Mar 16, 2020 by
   Tory Sarro (vsarro)

(rzachari)

Increase the minor's accessibility to non-science majors and increase the interdisciplinarity of the program by allowing students to choose from three course grouping options and expanding the courses.

PHYS 411 is a recently approved new course.

Catalog Published Information

Total Credits Required:

Total credits: **15-17**

~~17-20~~

Registrar's Office Use Only - Program Code:

RNRG

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Program-Specific Policies:

Policies

Eight credits of coursework must be unique to the minor and students must complete all coursework with a minimum GPA of 2.00. For policies governing all minors, see AP.5.3.4 Minors.

Degree Requirements:

Students should refer to the Admissions & Policies tab for specific policies related to this program.

Core Courses

~~PHYS 331~~	~~Physics of Renewable Energy~~	~~3~~
~~PHYS 385~~	~~Materials Science with Applications to Renewable Energy~~	~~3~~
~~MATH 113~~	~~Analytic Geometry and Calculus I (Mason Core)~~	~~4~~
Complete the following core courses:		
PHYS 131	**Introduction to Renewable Energy**	**3**
PHYS 411	**Renewable Energy Internship**	**3**

Total Credits   6

Minor Options

Choose three courses, including: 9 -

                                                                              11

    One (1) course (3 credits) from Category A

    One (1) course (3-4 credits) from Category B

    One (1) course (3-4 credits) from Category C or one (1) 300-400 level course (3-4 credits) from Category A or Category B

Category A: Economics and Policy

ECON 100	Economics for the Citizen (Mason Core)
or ECON 103	Contemporary Microeconomic Principles (Mason Core)
or ECON 104	Contemporary Macroeconomic Principles (Mason Core)
or ECON 105	Environmental Economics for the Citizen (Mason Core)
ECON 309	Economic Problems and Public Policies
ECON 335	Environmental Economics
ECON 435	Economics of Energy
EVPP 338	Economics of Environmental Policy
EVPP/GOVT 361	Introduction to Environmental Policy
EVPP 432	Energy Policy
GGS 303	Geography of Resource Conservation (Mason Core)
GGS 307	Geographic Approaches for Sustainable Development
GOVT 304	American State and Local Government
GOVT 364	Public Policy Making

Category B: Science and Technology

CEIE 100	Environmental Engineering around the World (Mason Core)
CHEM 101	Introduction to Modern Chemistry (Mason Core)
or CHEM 102	Chemistry for Changing Times (Mason Core)
or CHEM 103	Chemical Science in a Modern Society (Mason Core)
or CHEM 104	Chemistry for Changing Times (Mason Core)
or CHEM 155	Introduction to Environmental Chemistry I (Mason Core)
or CHEM 211	General Chemistry I (Mason Core)
or CHEM 271	General Chemistry for Engineers Lecture (Mason Core)
CHEM 156	Introduction to Environmental Chemistry II (Mason Core)
or CHEM 212	General Chemistry II (Mason Core)
CHEM 331	Physical Chemistry I
CHEM 332	Physical Chemistry II
CLIM 101	Global Warming: Weather, Climate, and Society (Mason Core)
or CLIM 102	Introduction to Global Climate Change Science (Mason Core)
GGS 102	Physical Geography (Mason Core)

GGS 121	Dynamic Atmosphere and Hydrosphere (Mason Core)	
GGS 122	Dynamic Geosphere and Ecosphere	
GEOL 321	Geology of Energy Resources	
PHYS 331	Physics of Renewable Energy	
PHYS 332	Solar Cells	
PHYS 385	Materials Science with Applications to Renewable Energy	
STAT 250	Introductory Statistics I (Mason Core)	
or STAT 344	Probability and Statistics for Engineers and Scientists I	
or STAT 346	Probability for Engineers	

Category C: Business and Communication

ACCT 203	Survey of Accounting	
or ACCT 204	Honors Survey of Accounting	
BULE 303	Legal Environment of Business	
BUS 200	Global Environment of Business (Mason Core)	
BUS 210	Business Analytics I	
BUS 310	Business Analytics II	
COMM 303	Writing across the Media	
COMM 330	Principles of Public Relations	
COMM 391	Writing for Public Relations	
EVPP 322	Business and Sustainability	
EVPP 401	Integrated Environmental Assessment	
EVPP 472	Tools and Techniques for International Development	
GOVT 358	Nonprofit Financial Planning	
MBUS 300	Accounting in a Global Economy	
MBUS 306	Managing Projects and Operations	
MGMT 303	Principles of Management	

Total Credits		9-11

~~Core Courses Physics~~

~~Select one from the following:~~		~~1-3~~
~~PHYS 245~~	~~College Physics II (Mason Core)~~	
~~PHYS 262~~	~~University Physics III (Mason Core)~~	
~~PHYS 266~~	~~Introduction to Thermodynamics~~	
~~Total Credits~~		~~0~~

~~Other Science or Engineering Course~~

~~Select 3-4 credits from the following in consultation with minor advisor:~~		~~3-4~~
~~PHYS 332~~	~~Solar Cells~~	
~~CHEM 212~~	~~General Chemistry II (Mason Core)~~	
~~& CHEM 214~~	~~and General Chemistry Laboratory II (Mason Core)~~	
~~GEOL 321~~	~~Geology of Energy Resources~~	
~~CHEM 271~~	~~General Chemistry for Engineers Lecture (Mason Core)~~	
~~CHEM 272~~	~~General Chemistry for Engineers Lab (Mason Core)~~	

~~ECE 301   Digital Electronics~~

~~Other appropriate science or engineering course chosen in consultation with the minor advisor.~~

~~Total Credits   0~~

~~Internship~~

~~Select one from the following options: 3~~

~~PHYS 409   Physics Internship 1~~

~~Total Credits   0~~

~~1Or a 3 credit internship in another natural science or engineering field. The course must be focused on renewable energy and chosen in consultation with the minor advisor.~~

Retroactive Requirements Updates:

Program Outcomes

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program?   No

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

Additional Attachments

Reviewer Comments

Jennifer Bazaz Gettys (jbazaz) (08/25/20 10:16 am): Rollback: Rolling back for ease of revision post-COSCC.

Jennifer Bazaz Gettys (jbazaz) (11/24/20 11:59 am): Rollback: Rolling back for revision per dept request.

Additional Comments

Is this course required of all students in this degree program?

%wi_required.eschtml%

Key: 350