
See http://www.uaf.edu/uafgov/faculty/cd/cdman.html for a complete description of the rules governing curriculum & course changes.

1. *ACTION DESIRED (check one):*	Trial Course		New Course	X	
2. *COURSE IDENTIFICATION*:	Dept	**ENVI**	Course #	**220**	No. of Credits **3**
Justify upper/lower division status & number of credits:	**This course is designed to serve as a course in the Environmental Studies (ENVI) Certificate program and Renewable Resources (RR) A.A.S. degree program. These programs focus on delivering quality entry-level coursework relevant to rural Alaska students with the goal of skill set development in the field of environmental sciences and renewable resources. This course focuses on energy use and production in society and its environmental impacts, which are ever growing concerns.** **ENVI 220 requires basic knowledge of math that students typically gain during their first year. The course has three contact hours per week.**				
3. *PROPOSED COURSE TITLE*	**Intro to Sustainable Energy**				
4. *CROSS LISTED?* *YES/NO*	**no**	If yes, Dept:		Course #	
(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)					
5. *STACKED?* *YES/NO*	**no**	If yes, Dept.		Course #	
6.					

No		Yes	X		September 16, 2010 - No resource impact.

20. IMPACTS ON PROGRAMS/DEPTS

What programs/departments will be affected by this proposed action?

APPROVALS:

ENVI 220 - Intro to Sustainable Energy

Term:	Spring 2011
Course Title:	Intro to Sustainable Energy
Dept. & Num:	ENVI 220
Credits:	3
Prerequisites:	Any 100 level MATH course; or permission of instructor
Dates:	Spring 2011 – all semester
Days and Times:	Tuesday, Thursday 6:50-8:20pm
Location:	Online; Distance-delivered from UAF BBC

Instructor:	Dr. Tom Marsik
Office Location:	UAF Bristol Bay Campus, Room 117
Position:	Assistant Professor
Phone:	842-5109
Fax:	842-5692
Email:	tmarsik@alaska.edu
Hours Available:	By Appt.

Text:	David J.C. MacKay. Sustainable Energy – without the hot air. UIT Cambridge, 2008. ISBN 978-0-9544529-3-3. Available free online from www.withouthotair.com

Course Description:

Introduction to societal problems and solutions related to its energy use and production. P

practices of energy production and use, and to evaluate the feasibility of possible solutions to these problems.

Student Learning Outcomes:

Upon successful completion of this course, the student will be able to:

- Recognize basic science concepts related to energy.
- Perform basic

Course Policies:

1. UAF requires students to conduct themselves honestly and responsibly, and to respect the rights of others.
2. You are expected to attend and actively participate in all lectures and seminars.
3. Homework will be assigned each Tuesday and due at the beginning of class the following Tuesday. You are encouraged to discuss homework questions with your peers, but you are not allowed to copy.
4. Late assignments will not be accepted without prior approval of instructor.
5. Student presentations must be delivered when scheduled.
6. Project reports are due on April 19, 2011. Late reports will not be accepted.
7. The instructor reserves the right to amend this course outline as needed.

Evaluation:

Final grades are calculated from the points earned in the following areas:

Attendance and Participation 10%

Students are expected to attend and actively participate in all classroom sessions.

Homework 10%

It will consist of problems and questions related to recently covered material in lectures (see the attached tentative schedule for lecture topics).

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800-478-5109
Fax: 907-842-5692

Students can also go to the UAF website http://www.uaf.edu or to the College of Rural and Community Development website http://www.uaf.edu/rural/ or to Bristol Bay Campus website http://www.uaf.edu/bbc/index.html.

UAF Disability Services for Distance Students

UAF has a Disability Services office that operates in conjunction with the College of Rural and Community Development (CRCD) campuses and UAF's Center for Distance Education (CDE). Disability Services, a part of UAF's Center for Health and Counseling, provides academic accommodations to enrolled students who are identified as being eligible for these services. If you believe you are eligible, please visit http://www.uaf.edu/chc/disability.html on the web or contact a student affairs staff person at your nearest local campus. You can also contact Disability Services on the Fairbanks Campus at (907) 474-7043, fydso@uaf.edu

Ideas for student presentations (first on list) and projects (last on list) include, but are not limited to:
LED lighting – presence and perspective for future
Induction lighting - presence and perspective for future (http://uslightingtech.com/)
High-efficiency organic photovoltaic materials
Energy payback of photovoltaic panels – in Alaska and generally
Energy payback of solar-hot-water panels – in Alaska and generally
Energy payback of wind turbines
Super capacitors for electrical energy storage – presence and perspective for future