The attached syllabus must clearly reflect the following basic elements for a class to be WRITING INTENSIVE

Make note them directly on the letter. (See Guidelines in this Manual.)

APPROVALS:

Chair, Program/Department of:

Date

Signature, Dean, Head, Dean of

Date

Senate Core Review Committee

ATTACH COMPLETE SYLLABUS (as part of this application)

missing or unclear, the proposed course entry will be denied.

SYLLABUS CHECKLIST FOR ALL UAE COURSES

during the first week of class, instruct

☐ telephone, ☐ e-mail

☐ Name, ☐ office location, ☐ office hours

3. Course readings/materials:

☐ Course textbook title, ☐ author, ☐ edition/publisher.

☐ Supplementary reading, indicate whether required or recommended

discussion, private instruction

☐ Describe the teaching techniques (eg. lecture, discussion,

course.

12. Disabilities Services:

The Office of Disability Services implements the Americans with Disabilities Act (ADA)

1,474-5655) to provide

☐ Students will work with the Office of Disabilities Services (200 WH

reasonable accommodation to students with disabilities."

University of Alaska Fairbanks

Electrical and Computer Engineering

or permission of instructor

s, Associate Professor, ECE Dept.

Office: Duckering 213

Office Hours: TBA or by phone/e-mail

Phone: 474-7071

E-mail: rwwiesjr@alaska.edu

and Design, 3rd ed., Wiley, 2003.

References: Daniel W. Hart, Power Electronics, Mc

adjustable-speed drives. In

power electronics design project.

analysis and design concepts. The course

and conver

sheet to build an

Evaluation/Grading: Plus/Minus grading will be used – see page 48 of the 2011-2012 UA catalog for

according to

and 15% of the course gr

Content refers to the effect

technical aspects of the assignment. English usage refers to punctuation,

spelling, sentence structure, etc. Organization refers to how logically the

sentences, paragraphs, etc.

meet with each student will follow the completion of the

check for refinement of

University of Alaska Fairbanks

Electrical and Co[illegible] Engineering Department

EE 408/608 - Power Electronics Design

Spring 2012

Oral presentations will be graded according to [illegible] visual aides

Written **500 (50%)**

Project Reports

Proposal **5%**

Mid-Term Progress **5%**

Lab Reports

Oral Presentations **150 (15%)**

[illegible] graduate students who may [illegible] [illegible] complete [illegible] definition.

Course Schedule/Senior Design Comp[illegible]

[illegible] lecture and [illegible] laboratory. Note that a significant portion of the laboratory is centered around [illegible] [illegible] during the [illegible] laboratory session.

Course[illegible]

[illegible]. Homework will be assigned on a weekly [illegible] at the beginning of class on the due date. No late homework will be accepted unless previously authorized by the instructor. I encourage discussion of solution techniques with [illegible] [illegible] must [illegible] results. Some homework assignments [illegible] and analysis of power electronic devices and systems. Homework solutions will be posted on [illegible]

University of Alaska Fairbanks

Electrical and Computer Engineering Department

[illegible] - Power Electronics

[illegible] must be attached to [illegible]

[illegible] of the course

[illegible] meeting with your instructor concerning [illegible]

[illegible] going to make up missed work. However [illegible] absences and the possibility of arranging [illegible]

[illegible] such arrangements are not made in advance [illegible]

[illegible] of the absence."

[illegible] will be contacted by phone at [illegible]

[illegible] [illegible]

Student Learning [illegible]

[illegible] Program must achieve the following Program Outcomes. [illegible]

[illegible] science, and engineering

[illegible] to design a system [illegible]

(d) an ability to [illegible]

University of Alaska Fairbanks

Rectifiers: Single Phase
Distortion Voltage
Feb. 27 – Lecture #16
Feb. 27 – Lab #
Voltage and Peak
Current Mode Control
Converters with Source
Spring Break
Mar. 30 – Lecture #25
Mode Inverters:
& Square Wave Mode of
Operation

University of Alaska Fairbanks

Electrical and Computer Engineering Department

EE 408/608 - Power Electronics

Apr. 9 – Lecture #29

Operation; Switch

Conduc

Rectifier Mode of

OPEN BOOK

2 Formulas Sheets

Selected Topics in Power

Design Project Time

Selecte

Power Supply

Motor Drives (dc, ac

Induction & Synchronous)

Ch. 11

May 11 – FINAL EXAM

University of Alaska Fairbanks

University

Power Electronics Design

Spring 2012

Senior/Graduate Design Project: Regulated DC Hand Drill Battery Power Supply Design

Team Approach:

You will be working in teams of two on this design project and each of the team members will have to sign off on each task in the workplan as it is completed.

will be required to submit a project workplan outlining [illegible] as part of the proposal. You will meet with [illegible] proposal.

2) *Mid-term Progress (Due: Monday, March 2, 2010):* You [illegible] mid-term progress.

3) *Draft Report (Due: Monday, April 25, 2010):* [illegible]

Report Type:

[illegible] such like a standard [illegible] report with [illegible] provide [illegible] application. This [illegible]