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**SUBMITTED BY:**

Department	Geology and Geophysics
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College/School	CNSM
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Faculty Contact	

**1. ACTION DESIRED**

(CHECK ONE):

Trial Course

New Course

**COURSE IDENTIFICATION:**

**GEOS 636 Beyond the Mouse: Computer Programming and Automation for Geoscientists**

Basic concepts of computer programming and effective automation of tasks using a computer, with an emphasis on tools and problems common to the geosciences and other physical sciences. Use of MATLAB, shell scripting and various command line tools for data analysis, making scientific figures, maps and visualizations.

**11. COURSE CLASSIFICATIONS:** (undergraduate courses only. Use approved criteria found on Page 10 & 17 of the manual. If justification is needed, attach on separate sheet.)

H = Humanities

S = Social Sciences

Will this course be used to fulfill a requirement for the baccalaureate core?

YES

NO

IF YES check which core requirements it could be used to fulfill.

**12. COURSE REPEATABILITY:**

Is this course repeatable for credit? YES

NO

Justification: Indicate why the course can be repeated

No

Yes

Library resources are not required for the course.

*What programs/departments will be affected by this proposed action?  
Include information on the Programs/Departments contacted (e.g., email, memo)*

[Redacted]

**APPROVALS:**

*Sarah Howell*

Date *9/26/11*

*[Signature]*

Date *10/6/11*

Signature Chair College/School Curriculum Council for [Redacted]

Sample Syllabus for GEOS 436/636

The remainder of this file is the actual syllabus for the current trial version of the course, which is

[REDACTED]

[The remainder of the page is heavily redacted with thick black horizontal bars, obscuring all text and graphics.]



	Lab 2: Matlab and Variables	
Sep 26,27	Lecture 3: Matlab I: (Advanced) Variables and functions	Jeff Freymueller
	Lab 3: Matlab structs and functions	
Oct 03,04	Lecture 4: Fundamental Programming Principles II: Control Structures	Ronni Grapenthin
	Lab 4: Matlab flow control	
Oct 10,11	Lecture 5: Matlab I/O I	Ronni Grapenthin
	Lab 5: Matlab I/O I (files)	
Oct 17,18	Lecture 6: Matlab I/O II	Ronni Grapenthin
	Lab 6: Matlab I/O II (plotting)	
Oct 24,25	Lecture 7: Unix Tools I	Jeff Freymueller
	Lab 7: Unix Tools	
Oct 31, Nov 01	Lecture 8: Unix Tools II	Jeff Freymueller
	Lab 8: Unix Tools	

	Lab 9: Unix Tools	
Nov 14,15	Lecture 10: Debugging	Ronni Grapenthin
	Lab 10: Debugging	
Nov 21,22	Lecture 11: GMT I	Bernie Coakley
	Lab 11: GMT – Data mapping	
Nov 28,29	Lecture 12: GMT II	Bernie Coakley
	Lab 12: GMT – Data mapping	
Dec 5-12	Independent Study: HTML	Ronni Grapenthin
	Lab 13: Setting up a website for project	



required). Once virtualbox is installed you need to put a linux distribution of your choice (maybe ubuntu) on top of this. See Ronni (ronni <at> gi <dot> alaska <dot> edu) if you need help with that.