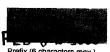
NEW COURSE APPLICATION





University of Washington Curriculum Review Committee

Prefix (6 characters max.) **STAT**

(V)	
Number	
302]

- annound in ite view committee			Offered jointly with:	
College or School Department				
Arts and Sciences Statistics				Date 01/05/09
Course Title				Credits
Statistical Software and Its Applic	ations			2 credits
Abbreviated title for transcripts (not to exc	ceed 19 characters, including	spaces, Type in CAPS):		2 credits
Stat Software Appl				
PURPOSE OF REQUEST				
X Permanent new course, to be effective_	Autumn Quarter 20 09 .			
☐ Temporary new course , to be offered b		_throughQuarter 20		
☐ Extension of a temporary new course ,	to be offered beginningQ	uarter 20through	Quarter 20	
□ Conversion of a temporary new course	, to be offered beginning(Quarter 20		
 □ Approval to offer this course as a Dista □ Permanent CR/NC grading only. □ Enforce automatic cancellation of registr □ Application is accompanied by an applihere. 	ation if prerequisites not met (und	lergraduate classes only)		ourse requested
Attach a course syllahus/or	utling and reading list if the			
2. JUSTIFICATION and CONTACT INFO		is course will be offered	for more than one q	uarter.
Facility with statistical software is recemployment. Currently the exposure course is intended to precede other ap background in statistical software use courses.	quired for applied coursewo and guidance students rece plied statistics courses so fl	ork as well as preparation ive in this area varies grant these of	n for graduate school eatly in degree and q	and for uality. This
Contact Name: June Morita	Phone: 616-6282	Email: june@stat.was	hington.edu Box#	: 354322
3. CATALOG DATA/COURSE DESCR If course is below the 500 level, the undergraduate general education in NW XX CSR C Catalog description (Must be doubted)	IPTION ne department can recomm requirements. Check all ap	and that it has		
(50-word limit)	-			/
Introduction to data structures and ba	sics of implementing proce	edures in statistical comp	outing packages, sele	cted from but
not limited to R, SAS, STATA, MAT			foundation in comp	utational
components of data analysis and for	subsequent applied statistic	s courses.		
Prerebuisite. Stat	3/1/Econ 31/6	r Stat 390/	16th 390	
Optional Catalog information (include onl	y if you want this information I	isted in the General Catalo	g description):	
Names and ranks of probable instructors (In	clude curriculum vitae for any inst	tructor not now on the Universi	tv facultv)	
June Morita, Principal Lectur			-,,	

REV.5/07

Quarter(s) offered (A, W, Sp, S) ____A, Sp_

COMPLETE OTHER SIDE OF THIS FORM

Contact hours per week	: 1 credit represents a total time	commitment of 3 h	ours per week of student ef	fort.	
Lecture 1	Laboratory2				
Quiz section					
	Studio				
Seminar	Other*				ĺ
*Attach explanation and ju	stification for "other" contact hou	rs.	TOTAL WEEKLY CONTAC	CT HOURS:	- 1
each week in preparation f	s will a student be expected to sport this course?	pend			
	or and oddioc;		TOTAL WEEKLY OUTSID	E HOURS:	
b. If variable credit, how will the	he number of credits awarded be	related to the amo	unt of student effort required	I?	s:
9 Weekly assignments (1 week's computing packa	ow each) involving (i) im	nlomontation 0	• • • • • • • • • • • • • • • • • • • •		6 for ea
10% in-class participation	statistical procedures. n and in-class discussions				
STUDENTS					
 a. Anticipated enrollment per of 	quarter12-15 .				
	(nonmatriculated students, under				
What are the primary learning o					
What are the primary learning of See appended document. JOINT COURSE List all departments, schools, or lift units from more than one sch		irse applications rec rate application mu	uire a signature from each o st be filed by each.)	unit.	
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Statistics 302: Statistical Software and Its Applications (2 credits)

Course Overview

Introduction to data structures and basics of implementing procedures in statistical computing packages, selected from, but not limited to R, SAS, STATA, Minitab. Students will gain a foundation in computational components of data analysis using major statistical computing packages, useful for subsequent data analyses in research and in applied statistics courses.

This course is intended to precede other applied statistics courses so that students enter these courses with a reliable common background in statistical software use, thereby allowing more efficient use of instructional time in these subsequent courses. This course is a pre-requisite or co-requisite to Stat 423.

Learning Objectives

- Be able to use data structures commonly used in major statistical computing packages
- Select & implement basic descriptive, modeling & inferential procedures in a selection of major statistical computing packages
- read & interpret output from these procedures

Texts, Readings

Dependent upon selection of computing packages for the given term.

Course Schedule

- Week 1: Overview of the current state of statistical computing and the major statistical computing packages.
- Week 2: Data structures matrices, arrays, data frames, lists; mathematical operations, data manipulations
- Weeks 3, 4, 5: Package #1 (e.g. SAS) Data structures, data entry, editing, operations; procedures for data description & summary; graphical displays, including interactive displays; categorical data display and inference; correlation & regression models & extensions.
- Weeks 6, 7: Package #2 (e.g. R) Data structures, data entry, editing, operations; procedures for data description & summary; graphical displays, including interactive displays; categorical data display and inference; correlation & regression models & extensions.
- Weeks 8, 9: Package #3 (e.g. Minitab) Data structures, data entry, editing, operations; procedures for data description & summary; graphical displays, including interactive displays; categorical data display and inference; correlation & regression models & extensions.
- Week 10: Other packages; Compare & contrast strengths & weaknesses of Packages #1,2,3.

Evaluation and Grading

Each of Weeks 1 through 9 there is a weekly assignment (10% each) involving

- implementation & interpretation of the current week's computing package and statistical (i) procedures and
- critique of the current week's computing package and statistical procedures. (ii)

An additional 10% is earned via in-class participation and in-class discussions.