NEW COURSE PROPOSAL

PROGRAM AREA _____

1. Catalog Description of the Course. *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

PSY 483 APPLIED MULTIVARIATE ANALYSES (4)
Three hours lecture and two hours lab per week
Prerequisite: PSY202, PSY 301; or consent of instructor
An applied overview of multivariate data analysis. Topics include multiple regression, discriminant analysis, canonical correlation analysis, factor analysis, cluster analysis, conjoint analysis, multivariate analysis of variance and an introduction to structural equation modeling.

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	3	1	25
Seminar	_____	_____	_____
Laboratory	1	2	25
Activity	_____	_____	_____

3. Justification and Learning Objectives for the Course. (Indicate whether required or elective, and whether it meets University Writing, and/or Language requirements) *[Use as much space as necessary]*

An elective course in the psychology major   The primary goal of this course is to provide Psychology majors with experience in an increasingly important aspect of the scientific method: using quantitative methodology and multivariate statistics to examine and answer psychologically relevant research questions. Through this course, students will:

1. Ensure that a given set of data conform to the assumptions made by common univariate, bivariate and multivariate statistical procedures;
2. Decide which common multivariate procedures to use with a given data set to answer a set of research questions;
3. Use SPSS to analyze a data set using multivariate analytical techniques;
4. Read and interpret the SPSS output in a correct manner;
5. Write up the statistical analyses in APA format;
6. Identify conditions under which multivariate methodologies are appropriate;
7. Evaluate experimental hypotheses requiring multivariate analytical techniques;
8. Identify the conditions under which multivariate techniques are preferred to univariate procedures;
9. Read and comprehend research that employs multivariate statistical procedures.

4. Is this a General Education Course   YES   **NO**
If Yes, indicate GE category:

A (English Language, Communication, Critical Thinking)	
B (Mathematics & Sciences)	
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

5. **Course Content in Outline Form.** *[Be as brief as possible, but use as much space as necessary]*

   Data screening and data editing
   Basic review of ANOVA models
   Multiple regression
   Discriminant analysis
   Canonical correlation anand canonical variate analysis
   Basic principal components and factor analysis
   Basic cluster analysis and conjoint analysis
   Multivariate analysis of variance and covariance
   Introduction to structural equation modeling

6. **References.** *[Provide 3 - 5 references on which this course is based and/or support it.]*

   American Psychological Association. (2002). *Publication manual of the American Psychological Association* (5th ed.). Washington, DC: Author.

   George, D., & Mallery, P. (2002). *SPSS for Windows step by step: A simple guide and reference* (4th ed.). New York: Allyn & Bacon.

   Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd ed). New Jersey: Lawrence Erlbaum.

   Tabachnick, B. G., & Fidell, L. S. (2002). *Using multivariate statistics* (4th ed.). New York: Allyn & Bacon.

   Tabachnick, B. G., & Fidell, L. S. (2002). *Computer-assisted research design and analysis.* New York: Allyn & Bacon.

7. **List Faculty Qualified to Teach This Course.**

   Psychology faculty

8. **Frequency.**
   a. Projected semesters to be offered: Fall __**X**__   Spring __**X**__   Summer _____

9. **New Resources Required.**
   a. Computer (data processing), audio visual, broadcasting needs, other equipment
   b. Library needs
   c. Facility/space needs

10. **Consultation.**
    Attach consultation sheet from all program areas, Library, and others (if necessary)

11. If this new course will alter any degree, credential, certificate, or minor in your program, attach a program modification.

Harley Baker	05 January 2003
Proposer of Course	Date

Approvals

_____
Program Coordinator   Date

_____
GE Committee Chair   Date
(If applicable)

_____
Curriculum Committee Chair   Date

_____
Dean   Date

Effective Semester: _____

1. Course prefix, number, title, and units: _____

_____

2. Program Area: _____

Recommend Approval

Program Area/Unit	Program/Unit Coordinator	YES	NO (attach objections)	Date
Art				
Business & Economics				
Education				
ESRM				
Humanities				
Liberal Studies				
Mathematics & CS				
Sciences				
Library*				
Information Technology*				

* If needed