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Approval Form 0835-598

Proposal Title: Quantitative Analysis in Health and Physical Education

Sponsor(s) Dr. Mary L. Putman Dept.: Health & Phys. Ed. Ext. 7110
Dr. Edward Chaloupka
Dept. of Health and Physical Education

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change (please name deletion or credit/title/catalog change)

Undergraduate Graduate 3 Credit Hours

| | | |
|---|--|---|
| <p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>2/7/91</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p><u>[Signature]</u> Dept. CC Chairperson</p> <p><input checked="" type="checkbox"/> Reviewed <u>2/6/91</u> Date</p> <p><u>[Signature]</u> Dept. Chairperson</p> | <p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# <u>90-91-41</u></p> <p>Proposal Received <u>2-8-91</u> Date</p> <p><u>[Signature]</u> SCC Chairperson</p> | <p>Step 3 (School CC)</p> <p>Reviewed <u>3-27-91</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments:</p> <p><u>[Signature]</u> School Curr Comm. Chairperson</p> |
|---|--|---|

Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed 3/28/91
Date

[Signature]
Signature, Dean of School

Step 5 (SCC)

Open Hearing 4/9/91
Date

Approved by Senate Curriculum Committee 5/3/91
Date

Returned to sponsor(s) for the following reasons:

Step 6 (Senate)

Presented to Senate _____
Date

Approved Not Approved

Notification to Executive Vice-President/Provost _____
Date

[Signature]
Signature, SCC Chairperson

Step 7 (Executive V.P./Provost)

Received 6/12/91
Date

Approved Yes No

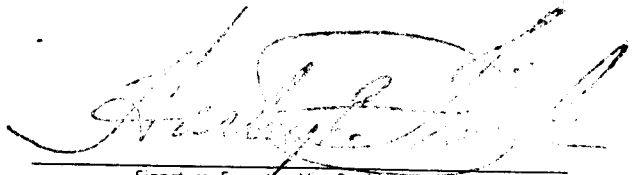
If no, reasons are as follows:

Student credit hours 3

Faculty load hours 3

Equalized credit hours 3

Official copy and approval sheet filed JUL 25 1991
Date


Signature, Executive Vice-President/Provost

Registrar

Approved course description received 22 July 91
Date

Hegis Taxonomy and Course Number assigned 0835.598

B. F. Kelsey
Signature, Registrar

22 July 91
Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

1. DETAILS

- a. Course Title: Quantitative Analysis in Health and Physical Education
- b. Sponsors: Dr. Mary Putman, Dr. Edward Chaloupka, Health and Physical Education
- c. Level: Graduate, 3 S.H.
- d. Curricular Effect: Required course in Master of Arts Degree in Health and Physical Education
- e. Prerequisites: Research Design in Health and Physical Education or by permission of Graduate Committee in Health and Physical Education
- f. Suggested time & scale of implementation: Fall semester, 1991
- g. Resources: Adequate staff exists in the Department of Health and Physical Education. Adequate computer terminals exist at Glassboro State with the combined resources in the Department of Health and Physical Education and computer laboratories in the School of Education and Related Professional Studies.

2. RATIONALE.

Presently, students in the Master of Arts Degree Program in Health and Physical Education take the required course "Research Design and Statistics in Health and Physical Education". This course has been taught in the Department of Health and Physical Education since 1973 and combines both research design and statistical application. To improve the statistical application capability of the graduate student more course time is needed with quantitative analysis procedures than is presently possible in the course "Research Design and Statistics in Health and Physical Education". In addition, the proposed course "Quantitative Analysis in Health and Physical Education" would expose the student to, and provide hands-on experience with, the microcomputer applications of statistical packages. Such microcomputer programs will improve the efficacy of the statistical analysis for the student. After review of existing courses in the Graduate Catalog and consultation with Dr. Thomas Monahan, Acting Dean of the Graduate School, it was concluded that a course that combines both statistical approaches and hands-on use of

microcomputer statistical packages is a positive addition to the curricular offerings in the Department of Health and Physical Education.

3. ESSENCE OF THE COURSE:

a. Objectives: The student will be able to:

1. appreciate the relationship of statistical applications to the research process
2. integrate appropriate statistical applications with different research approaches
3. compare differing statistical applications
4. apply processes to aggregate data
5. examine and interpret the components of descriptive statistics
6. examine and interpret the components of inferential statistics
7. apply the use of microcomputer statistical packages to data analysis

b. Topical Outline.

1. Relationship of statistical approaches to research design
2. Descriptive statistics
 - measures of central tendency
 - measures of variability
3. The normal curve
4. Inferential Statistics
 - populations and samples
 - hypothesis testing
 - probability
 - significance levels
 - type I and type II errors
 - one and two tailed tests
 - degrees of freedom
5. Statistical Correlation
 - product-moment
 - multiple correlation
 - partial correlation
6. Regression Analysis

7. t-test
 - mean differences
 - group variability
 - confidence intervals
8. Analysis of Variance
 - single classification
 - multiple classification
9. Analysis of Covariance
10. Nonparametric Statistics
11. Microcomputer Use of Statistical Packages (i.e. SPSS)

C. Evaluation and Grading Procedure

1. quizzes
2. examinations
3. written projects
4. computer analysis projects

d. Course Evaluation

Course will be evaluated by feedback from student evaluations and review by the departmental graduate committee in health and physical education.

e. Results of Consultation

- a. Dr. Thomas Monahan - Acting Dean of the School of Graduate Studies
- b. Graduate Committee - Department of Health and Physical Education

CATALOG DESCRIPTION - Quantitative Analysis In Health and
Physical Education

Students will investigate the application of statistical procedures in research processes in health and physical education. Descriptive and inferential statistics are included. The students will use microcomputer statistical packages for data reduction and analysis.



FEB 26 1991

GLASSBORO STATE COLLEGE

Graduate Studies Office

Glassboro, New Jersey 08028-1701 (609) 863-6214

February 19, 1991

Edward Chaloupka, Ph.D.
Department of Health and Physical Education
Glassboro State College
Glassboro, N.J. 08028

Dear Ed,

Thank you for the opportunity to comment on your proposed course entitled, "Quantitative Analysis in Health and Physical Education". I completely agree with the focus of the proposed course. As you know, I have taught the basic research design course at the graduate level for the past six years, and, as a result, am very cognizant of the class time that is needed to do that job effectively. To teach both design and quantitative analysis in one 3-credit course, as well as to introduce students to the microcomputer applications of the available statistical packages places too much demand on the professor, dilutes the quality of the course, and robs the students of valuable experiences. Adding a new course which focuses on qualitative analysis and microcomputer statistical applications will provide rich opportunities for students to fully understand the research paradigm, including statistical analyses of research data. I hope your proposal is approved by the curriculum committees of your department and the Senate.

Sincerely,

Thomas C. Monahan
Acting Dean