

FACULTY SENATE
CURRICULUM COMMITTEE

Approval Form

Department Life Science Department

Title Work Physiology

Sponsor(s) Dr. E. Chaloupka Mrs. N. Hornstein No. of Credits 3

COURSE _____ CONCENTRATION _____

Approved by the department (For intersession only) Graduate ()

Not recommended by the department Undergraduate (X)

Information copies forwarded: Academic Dean; Chairman; Curriculum Committee

[Signature]
Signature: Department Chairman

[Signature]
DEPT H. & P.E.

DIVISION

consultation on proposal has been held

Comments:

[Signature] 2/19/77
Signature: Academic Dean or Divisional Committee

CURRICULUM COMMITTEE

Proposal received 11

Open Hearing held 10-20-77

Returned to the department for the following reason(s):

Approved by the Curriculum Committee

Presented to Executive Committee of the Faculty Senate as information

Notifications forwarded: Vice President for Academic Affairs

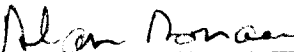
[Signature]
Signature: Chairman, Curriculum Committee

ACADEMIC DEAN

I have reviewed the final documents as approved and concur with same.
Budget, faculty and library resources are adequate for immediate implementation.

I have reviewed the final documents as approved and concur with same.
Budget, faculty and/or library allocations for the current academic year
are inadequate for immediate implementation or implementation in the next
fiscal year. The earliest that the proposal might be implemented would be

HEGIS Taxonomy Number: _____



Signature: Academic Dean

Copies forwarded: Chairman, Curriculum Committee; Department Chairman;
Provost; Registrar

REGISTRAR

Approved course description received

Signature: Registrar

PROVOST

Official copy and approval sheet filed

Signature: Provost (or designee)

- Note:
- 1) Course proposal format is attached
 - 2) A copy of this approval form should accompany each proposal
 - 3) A copy of a proposed catalogue description of the course must accompany the proposal as a separate page.



State of New Jersey
GLASSBORO STATE COLLEGE
GLASSBORO, NEW JERSEY 08028

77/10/77

DEPARTMENT OF HEALTH AND PHYSICAL EDUCATION

November 9, 1977

Re: Consultancies
Work Physiology

Dr. Leonard Serfustini, Chairman, Department of Health and Physical Education

Dr. Elizabeth Moore, Chairperson, Life Science Department

Both of the above were consulted concerning course title and subject material for course titled Work Physiology. It was felt that the subject matter in this course would add meaningful experience for the students and would not be repetitive of material presented in other courses.

21-18/11

1. The first step in the process of...
2. The second step is to...
3. The third step is to...

4. The fourth step is to...

- 1. The first step is to...
- 2. The second step is to...
- 3. The third step is to...
- 4. The fourth step is to...
- 5. The fifth step is to...
- 6. The sixth step is to...
- 7. The seventh step is to...
- 8. The eighth step is to...
- 9. The ninth step is to...
- 10. The tenth step is to...

5. The final step is to...

- 1. The first step is to...
- 2. The second step is to...
- 3. The third step is to...
- 4. The fourth step is to...
- 5. The fifth step is to...
- 6. The sixth step is to...
- 7. The seventh step is to...
- 8. The eighth step is to...
- 9. The ninth step is to...
- 10. The tenth step is to...
- 11. The eleventh step is to...
- 12. The twelfth step is to...
- 13. The thirteenth step is to...
- 14. The fourteenth step is to...
- 15. The fifteenth step is to...
- 16. The sixteenth step is to...
- 17. The seventeenth step is to...
- 18. The eighteenth step is to...
- 19. The nineteenth step is to...
- 20. The twentieth step is to...

6. The final step is to...

- 1. The first step is to...
- 2. The second step is to...
- 3. The third step is to...
- 4. The fourth step is to...
- 5. The fifth step is to...
- 6. The sixth step is to...
- 7. The seventh step is to...
- 8. The eighth step is to...
- 9. The ninth step is to...
- 10. The tenth step is to...
- 11. The eleventh step is to...
- 12. The twelfth step is to...
- 13. The thirteenth step is to...
- 14. The fourteenth step is to...
- 15. The fifteenth step is to...
- 16. The sixteenth step is to...
- 17. The seventeenth step is to...
- 18. The eighteenth step is to...
- 19. The nineteenth step is to...
- 20. The twentieth step is to...

PROPOSAL FOR A COURSE

1. Title: Work Physiology
2. Instructor: Dr. Richard S. Thompson

Summary:

- a. Undergraduate
- b. 3 hours
- c. Junior - Senior Level
- d. Prerequisites: Human Physiology or equivalent
- e. Curricular pattern: - ?

Other Details:

- a. Present staff and resources are adequate for immediate implementation of course.
- b. Library facilities are adequate.
- c. Space needs are met by existing facilities - classroom and laboratory space.
- d. Course is unique in that no present course specifically deals with the short and long term effects of work on the human physiological systems.
- e. Specific Objectives:
 - 1. To gain knowledge concerning the various functions and physiological functions of the human body.
 - 2. To relate the physiological effects of work stress to underlying principles governing the conduct of tasks and abilities to minimize stress and maximize the efficiency of the human organism.
 - 3. To survey the recent and pertinent literature in the area of work physiology in order to gain insight into the most recent research in this area.
 - 4. To develop an awareness and interest in the scientific method of discovery as it relates to problems in work physiology.
 - 5. To relate practical experience to theory through laboratory experiments in work physiology.
- f. Student evaluation will consist of written exam and oral comprehension of topical course material.

Typical Outline Attached

Purpose: The purpose of this course is to introduce the student to the area of work stress on the human organism. The material covers in specifically detail with stress on work physiology, to develop material on human physiology as presented in the curriculum in today's world of automation and high speed work. The student will gain a better understanding of the effects of stress on the human organism and the physiological-chemical and chemical.

Prerequisites: Human Physiology

Course Description: Course is designed to study the effects of work stress on the human organism. Specifically, the student will study the effects of work stress on the human organism and the physiological-chemical and chemical.

A. Topical Outline

1. The role of the metabolic energy sources at rest and during work
 - a. biological energy cycle
 - b. aerobic metabolism
 - c. anaerobic metabolism (alactacid and lactacid systems)
2. Development and conduct of condition regimens and their effects on physiological function.
 - a. conditioning principles
 - b. continuous conditioning
 - c. intermittent conditioning
 - d. physiological advantages and disadvantages of continuous and intermittent conditioning
3. The neuromuscular system at rest and during work
 - a. structure and function
 - b. recent theories on the physiology of muscular contraction
 - c. programs and principles for development of muscular strength, endurance, flexibility and speed
 - d. work and power concepts
 - e. physiology of fatigue and muscle soreness
 - f. physiology and value of warm-ups
4. The cardiorespiratory system at rest and during work
 - a. pulmonary function
 - b. gaseous exchange and transport
 - c. cardiovascular and respiratory systems interrelationship
 - d. heart rate
 - e. stroke volume
 - f. cardiac output
 - g. pulmonary ventilation
 - h. tidal volume
 - i. comparison of conditioned and unconditioned individuals with respect to the cardiorespiratory system
 - j. concept of oxygen consumption as measurement of cardio-respiratory fitness.
5. Work and heat balance
 - a. temperature regulation
 - b. work an environmental conditions of heat stress
 - c. heat disorders in work activities
 - d. prevention and care of heat disorders
6. Factors affecting performance
 - a. attitude
 - b. smoking
 - c. alcohol
 - d. water environments
7. Work and the achievement and maintenance of a healthful condition
 - a. work and increased performance of the cardiorespiratory system
 - b. blood lipid and cholesterol levels as affected by work
 - c. prevention and recovery from myocardial infarct
 - d. exercise and longevity
 - e. resistance to disease
 - f. anxiety and tension
 - g. work and weight control, work and diet

INTERSESSION 1978
Course Information Sheet

PROPOSAL NO. _____ TITLE Work Adaptation
INSTRUCTOR J. R. Harrison (1 hr.) CREDIT HOURS 1

COURSE DESCRIPTION
(50 words or less - please print or type)

Course is designed to study the affect of work stress on the human organism. Specifically, start from work stress and find work adaptations in the cellular, cardiovascular, respiratory and neuroendocrine systems.

MAXIMUM ENROLLMENT 25 (Desired) BUILDING Rossart
(Desired) ROOM NUMBER 126

From JANUARY 3 1978 to JANUARY 27 1978

Please circle the days of the week the course will meet: M T W R F

Please give any other details which will clarify for students exactly what they can expect as far as times, off-campus experiences, etc.

9:00-11:00 a.m. each day

Estimated Costs to Students (excluding tuition) if any:

None

Telephone Number where additional information about this course can be obtained by students:

617-222-1111

Non-University Expenses:

4 x 1/2 sheet graph paper @ \$12.00 per box
4 set Physiograph pens @ \$30.00 per set
20 ml lactate analysis reagents @ \$10.00 = \$42.00

1978 INTERSESSION

PART B. ACADEMIC CREDIT REQUEST: Request for intersession offering to be approved for college credit by Short-Term Course Committee

Directions: Please complete this form only if the requested course offering is not a college course already approved for academic credit.

Title of Course Work Physiology S.H. Credit 1

Rationale and Justification of Course Offering:

The purpose of this course is to introduce to the student the affect of work stress on the human organism. In today's society of automation and high stress it is imperative that the individual can most efficiently meet work stress demands encountered in his physical-chemical environment.

Description of Course: (Include clear statement of outcomes or goals to be achieved)

Study of human response (cardiovascular, respiratory, muscular) to work stress conditions. Intent will be to look at physiological response of the above systems to both short and long term work stimuli. Course will expose the student to such instrumentation as electrocardiogram, electroencephalogram, electromyograph, physiographs and workometry equipment.

Topics to be Included in Course:

Cell physiology. Short term work affects on: cardiovascular, respiratory, neuromuscular systems, temperature regulation. Long term work adaptations of above systems.

Evaluation Procedures to be Employed Including Provision for Student, Colleague and Peer Evaluations of the Experience:

Student evaluation will consist of written assignments, a written exam, and a final project.

Note: If course is to be located off-campus, attach a descriptive itinerary.

Date _____ Signatures: Instructor Sponsoring Offering _____

Date _____ Department Head _____

Interession
1978

GLASSBORO STATE COLLEGE
GLASSBORO, NEW JERSEY

PART A

Please print or type

INTERSESSION 1978

Proposal Title Work Physiology Date Submitted April 18, 1977

Initiator/Faculty Sponsor Dr. Edward Cholewicki Phone (Home) 973-4046

For Academic Credit: (YES) X (NO) (Office) 202 or 734

IF FOR ACADEMIC CREDIT COMPLETE THE FOLLOWING BLOCK

Course Title	<u>Work Physiology</u>	Credits	<u>3</u>	<u>G</u> <u>U</u>	
Course already approved for Academic Credit:	YES <u> </u> NO <u> </u>	Catalogue NO	<u> </u>	Dept.	<u> </u>
Approved for Interession only <u> </u>					
(If course is not approved for academic credit, nor for Interession only, please complete PART B)					
Signatures: Dept. Head <u>R.T. Eyring (H. + V.E.)</u> <u>James Jackson</u>					
(Required only if course has been approved)					

General Description of Program (Indicate special features, desired time model, academic or other prerequisites, etc.)

Study of human response (cardiovascular, respiratory, muscular, temperature regulation) to work stress conditions. Intent will be to look at physiological response of the above systems to both short and long term work stimuli. It will expose the student to such instrumentation as electrocardiogram, electroencephalogram, physiographs, and work ergometry equipment. Introduction of this course requires close working between Health and Physical Education and Life Sciences departments and sharing of instrumentation and facilities. Prerequisite of human physiology or equivalent.

Return to: Muriel Onni, Foreign Language Department, Memorial Hall

DEADLINE FOR RECEIVING PROPOSALS: April 29, 1977

GLASSBORO STATE COLLEGE
Glassboro, New Jersey

REPORT OF SHORT TERM COURSE OFFERING

Title of Course Work Physiology

Course Number _____ Credit Hours 3

Sponsoring Department Life Science and Staff Member Assigned Dr. R. Meacher

Term Offered Physical Education
Interession Specific Time Period If Not Full Term _____

Location Glassboro State College Number of Students Enrolled _____

I. Brief description of the course:

Study of human response to work stress conditions.

II. Recommendation for future consideration:

A. I do not recommend that this course be offered again.

Comments:

B. I recommend that this course be considered by the College Curriculum Committee for approval for subsequent offering.

Comments:

This proved to be a rigorous course which is valuable for students who have an interest in or require training for physiology.

III. Attachments - Please attach to this form the following:

- A. Student evaluations and comments regarding the course offering.
- B. Colleague evaluations and comments regarding the course offering.
- C. Copy of final proposal.

Signed:

Elizabeth Sankle
Department Chairman

PLEASE FILL OUT AND RETURN TO DR. KENNETH CLAY AS SOON AS POSSIBLE.