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APPROVAL FORM

- 1) An approval form must accompany each proposal.
- 2) A proposed catalogue description of the course must accompany the proposal as a separate page.
- 3) Results of all consultations must be attached to the proposal.

Proposal Title ABSTRACT COURSE

Sponsor(s) Dr. Loy Queney & Dr. W. G. Woods, Jr. Dept. Communications & Physical Sciences
 Primary responsibility: Communications

Check One (Course X Credit/Level/Title Change _____ Other _____ Dept. _____)
 (Concentration _____ Specialization _____ Major Program _____ Certification _____)

Graduate Undergraduate X No. of Credits 3

REVIEWS

Department <u>Curr. Comm.</u>	Division <u>Curr. Comm.</u>	Dean of Division
Reviewed <u>[Signature]</u> Date <u>3/17/79</u>	Reviewed <u>[Signature]</u> Date _____	Reviewed <u>5/20/79</u> Date _____
Approved <u>3/12/79</u> Not Approved Date _____	Approved _____ Not Approved <u>[Signature]</u> Date _____	
<u>[Signature]</u> Chairperson Dept. Curr. Comm.	<u>[Signature]</u> Chairperson Div. Curr. Comm.	<u>[Signature]</u> Signature

SENATE CURRICULUM COMMITTEE

SCC # 10-71-24 Proposal Received 3/17/79 Open Hearing Held 5/17/79

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

After consultation with concerned department

Approved by the Curriculum Committee: Date 5/23/79

Presented to Executive Committee of the Faculty Senate as information: Date 5/31/79

Notifications forwarded: Vice President for Academic Affairs: Date 5/31/79

[Signature]
Chairperson, Curriculum Committee

[Signature] 1-3-79

I. TITLE: Aerospace Workshop
DEPARTMENTS: Communications and Physical Sciences
SPONSORS: Dr. Kay Queeney and Dr. W. C. Woods, Jr.

II. ESSENCE:

- A. Undergraduate
- B. Three semester hours; interdisciplinary course
- C. No prerequisites
- D. This course will be offered during Intersession or summer session as the need for it arises.

III. OTHER DETAILS

- A. Due to the nature of this interdisciplinary course, the Communications, Physical Sciences, Geography/Anthropology, Life Sciences, and Industrial Education and Technology Departments will provide the instructional expertise for this program.
- B. Supplemental services will be provided by the following resources:
 - 1. National Aeronautics and Space Administration Educational Services Division.
 - 2. Glassboro State College Document Depository (National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration documents available since 1964)
 - 3. Films, filmstrips, books and reference materials on interlibrary loan from NASA's library.
 - 4. Resource audio-visuals supplied by the instructional divisions listed in III A above.
- C. Space needs are adequate.
- D. An intensified schedule of six contact hours a day is necessary because of the special nature of the course. No similar course is offered at the college.

IV. TOPICAL OUTLINE:

B. Communication Satellites (Continued)

6. Broadcast Satellite Service: community reception and individual reception
7. Applications of three experimental broadcast satellite systems
8. Political, social, cultural, legal, cultural implications of broadcast satellites to developed and developing countries

C. Remote Sensing

1. Introduction to "Landsat" and remote sensing
2. Construction of regional Landsat mosaic
3. Analysis and interpretation of gross features on the regional Landsat mosaic
4. "Mission to Earth" and availability of Landsat materials

D. Meteorology

1. Historical relationship in the formation of the atmospheres of the planets
2. Satellite weather analysis/Remote sensing
3. Instrumentation used in weather study

E. Rocketry

1. Rocketry history
2. What makes a rocket go?
3. Fundamental principles of rocketry
4. Communication satellites technology
5. The direct broadcast satellite technology
6. Space shuttle and present launch vehicles

F. Aeronautics

1. Balloons - to airplanes - to space shuttle
2. Principles of flight
3. Principles of Navigation
4. Navigation Activities
5. Airport orientation and light aircraft flight

V. RATIONALE:

Characteristically, new scientific knowledge reaches general application in classrooms years after it is obtained. The Aerospace Workshop, an interdisciplinary course involving various departments, is designed for three specific purposes: 1) to make students and teachers aware of what aerospace

COURSE DESCRIPTION

Aerospace Workshop, 3 sh., 4902.406

Aerospace Workshop is a unique space age course. Interdisciplinary in nature, it will be conducted through the cooperation of the departments listed above (Ref. IIIA). Students will be actively involved in workshop activities. Topics include the following: rocketry; communication satellites and their applications; astronomy; meteorology; basic principles of flight; balloons to airplanes to space shuttle; remote sensing of the earth. A trip to a space center and to the Smithsonian Air and Space Museum will be part of the course. Enrollment is limited. This undergraduate course provides three semester hours credit and may be taken at the option of pass/no credit after consultation with sponsors.

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MEMO

Glassboro State College

To Curriculum Committee Members

Re Aerospace Workshop

Date May 8, 1979 From Janice F. Weaver

DIVISION OF PROFESSIONAL STUDIES

After discussing the Aerospace Workshop proposal with Dr. Queeney and reviewing the paperwork, I recommend that it be approved.

If you need any additional information, please feel free to contact me.

JFW/k1s



State of New Jersey
GLASSBORO STATE COLLEGE
GLASSBORO NEW JERSEY 08028

DEPARTMENT OF SECONDARY EDUCATION

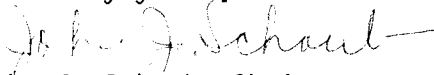
May 11, 1979

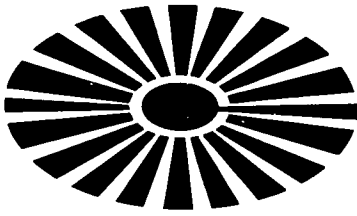
Dr. Kathryn Queeney
Communications Department
Bunce Hall

Dear Dr. Queeney:

The Aerospace Workshop is a desirable elective offering for Glassboro State College students.

Sincerely yours,


John J. Schaub, Chairman
Department of Secondary Education



M E M O R A N D U M

TO: College Curriculum Committee

FROM: John Gallinelli, Director

DATE: May 15, 1979

RE: Aerospace Workshop,
Dr. K. Queeney and Dr. W. C. Woods, Jr.

I have consulted with Dr. Woods and Dr. Queeney concerning the Aerospace Workshop and I feel that it is a viable program for teachers. We have cooperated with the directors of the workshop in the distribution of materials concerning this workshop.

mi

MEMORANDUM

LIFE SCIENCE DEPARTMENT

TO: Faculty Senate Curriculum Committee

FROM: Elizabeth Moore, Chairperson E.M.M.

RE: COURSE PROPOSAL U

DATE: May 15, 1979

Professor Wellington Woods discussed his proposal for an interdisciplinary course, Aerospace Workshop, with me. I think that it could be a valuable, timely course and should be approved.

EM/vb

MEMORANDUM

PHYSICAL SCIENCE DEPARTMENT

TO: Faculty Senate Curriculum Committee

FROM: Lee A. Dinsmore, Chairman *Lee A. Dinsmore*

SUBJECT: New Aerospace Course Proposal

DATE: May 11, 1979

I have consulted with Dr. Woods regarding the Aerospace Workshop course proposal. It is my opinion that this course would be a definite asset in meeting the needs of our department.

LAD:Y



State of New Jersey

GLASSBORO STATE COLLEGE
GLASSBORO, NEW JERSEY 08028

COMMUNICATIONS DEPARTMENT
609-445-7187

TO: Curriculum Committee
FROM: Mr. Ambacher *WA*
SUBJECT: Aerospace Workshop
DATE: May 16, 1979

I endorse this proposal. It worked during
Intersession and should continue to work.

RA:bs

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E. Specific Objectives

1. To provide teachers with knowledge and skills in aerospace education for implementation in their respective classrooms.
2. To enable students to demonstrate an understanding of the significance of space technology and space exploration in improving the quality of life here on earth.
3. To provide students with an understanding of the applications of the communication satellite to our political, economic, social, educational, and cultural environment.
4. To have students appreciate the technological achievements of the United States as the leading space nation of the world.
5. To motivate interested students to consider the many possible careers in the aerospace field.
6. To give students an opportunity to become actively involved in a unique space age learning experience.

F. Evaluation of students will include:

1. Workshop activities.
2. Two class evaluation papers.

IV. TOPICAL OUTLINE:

Specific topics will include:

A. Astronomy

1. Orientation to the heavens
2. History of astronomical ideas
3. Tools of the astronomer
4. Development of an appreciation of the metric system
5. Astronomy and satellites
6. Modern day astronomy

B. Communication Satellites

1. Advent of the space age
2. Components of a satellite system
3. Early Bird to Intelsat series
4. Communication Satellite Service: direct and indirect
5. Applications of communications satellites

V. RATIONALE: (Continued)

technology is accomplishing in global communications, astronomy, navigation, geology, meteorology and exploration of the solar system; 2) to have students demonstrate how the application of the new technologies is improving the quality of life; and 3) to provide an aerospace course of special value to teachers in that they will be able to implement the knowledge and skills they have acquired from the Aerospace Workshop to their own classroom experiences.

VI. CONSULTATION:

Elva Bailey, National Aeronautics and Space Administration, Chief Educational Division, Goddard Space Flight Center, Greenbelt, Maryland

Richard Crone, National Aeronautics and Space Administration, Educational Division, Goddard Space Flight Center, Greenbelt, Maryland

Raymond Corey, National Aeronautics and Space Administration, Chief, Educational Programs Staff, John F. Kennedy Space Center, Florida

Brad Gibbs, National Aeronautics and Space Administration, Communications Specialist, Ames Research Center, California

Garth Hull, National Aeronautics and Space Administration, Chief, Educational Services Division, Ames Research Center, California

Richard Ambacher, Chairperson, Communications Department, Glassboro State College, New Jersey

Wade Currier, Geography and Anthropology Department, Glassboro State College, New Jersey

Dr. Lee Dinsmore, Chairperson, Physical Sciences Department, Glassboro State College, New Jersey

Dr. John Gallinelli, Director of Teaching Center, Glassboro State College, New Jersey

John Schaub, Chairperson, Secondary Education Department, Glassboro State College, New Jersey

Dr. Janice Weaver, Dean of Professional Studies, Glassboro State College, New Jersey

Dr. Elizabeth Moore, Chairperson, Life Science Department, Glassboro State College, New Jersey

Dr. Ted White, Chairperson, Industrial Technology and Education Department

Student evaluations from the first offering of the course in Intersession 1979 are included in this proposal. They indicate enthusiastic student approval of the course and a need to continue offering it.