

Faculty Senate Curriculum Committee

Approval Form



Proposal Title: Coastal Processes & Problems

Sponsor(s): Dr. J. Waring Dept.: Marine Science Consortium

Check one:  Course  Specialization  Concentration  Achievement Certificate

Certification Program  Major Program  Minor Change \_\_\_\_\_  
(please name: deletion or credit/title/catalog change)

Undergraduate  Graduate 4 Credit Hours

<p><b>Step 1 (Department)</b></p> <p><input checked="" type="checkbox"/> Approved <u>3/7/86</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p><u>Joseph Waring</u> Dept. CC Chairperson</p> <p><input type="checkbox"/> Reviewed _____ Date</p> <p>_____ Chairperson, Dept.</p>	<p><b>Step 2 (Receipt)</b></p> <p>SCC# <u>85-86-84</u></p> <p>Proposal Received <u>3/7/86</u> Date</p> <p><u>Brenda A. Bolay</u> Chairperson, SCC</p>	<p><b>Step 3 (School CC)</b></p> <p>Reviewed <u>3/7/86</u> Date</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Not Approved</p> <p><b>Comments:</b></p> <p><u>Brenda A. Bolay</u> Chairperson, School Curr. Comm.</p>
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**Step 4 (Academic Dean) Comments:**

Reviewed \_\_\_\_\_  
Date

\_\_\_\_\_  
Signature, Dean of School

**Step 5 (SCC)**

Open Hearing 3/27/86  Approved by Senate Curriculum Committee 3/27/86  
Date Date

Returned to sponsor(s) for the following reasons:

**Step 6 (Faculty Senate)**

Presented to Faculty Senate : 4/1/86  Approved  Not Approved  
Date

Notification to Vice-President Academic Affairs 4/15/86 Brenda A. Bolay  
Date Signature, SCC Chairperson

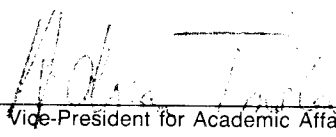
**Step 7 (Vice-President for Academic Affairs)**

Received 4/15/06  
Date

Approved  Yes  No

If no, reasons are as follows:

Student credit hours 4  
Faculty load hours BASED on STUDENTS ENROLLING  
Equalized credit hours NA  
Official copy and approval sheet filed 9/16/06  
Date

Signature   
Vice-President for Academic Affairs

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**Registrar**

Approved course description received \_\_\_\_\_  
Date

Hegis Taxonomy and Course Number assigned \_\_\_\_\_

Signature \_\_\_\_\_  
Registrar

\_\_\_\_\_  
Date

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Notification forwarded: Senate Curriculum Committee Chairperson, Department Chairperson(s), Academic Dean(s), Registrar, Sponsor(s).

NEW JERSEY MARINE SCIENCES CONSORTIUM

COURSES

Glassboro State College is a member of the N.J.M.S.C.

All proposals for courses taught through the N.J.M.S.C. are first submitted to and passed by the curriculum committee of the home institution of the individual proposing the course. They are then evaluated and acted on by the N.J.M.S.C. Academic Committee. Once accepted by the Consortium, course proposals are then sent to member institutions for action by the individual college's curriculum committee for credit by that member institution.

Dr. C. Joseph Waring,  
Glassboro State College  
Representative to the  
New Jersey Marine Sciences Consortium.

JEW JERSEY MARINE SCIENCES CONSORTIUM

COURSE OUTLINE

1999-0482

400/500 Level

COASTAL PROCESSES AND PROBLEMS

4 Credits

I. Brief Description of the Course

The development, modification, geologic history, and problems of New Jersey's coast.

Prerequisite: Permission of the instructor.

II. General Aim of the Course

To acquaint the student with the general aspects of New Jersey's shoreline through classroom, laboratory, and field studies.

III. Specific Objectives of the Course

To investigate the materials and processes that are involved in the development and modification of New Jersey's littoral, shoreline, and tidal marsh environments. To familiarize the student with the geologic history of this shoreline. To make use of the laboratory and field techniques employed in the study of shorelines. To familiarize the student with the geologic, economic, social, environmental, and political problems of the state's coast.

IV. Content and Scope of the Course

- A. Description of New Jersey's coast.
- B. Geologic history of this coast - coastal paleogeography.
- C. Processes involved in development and modification of the coast.
- D. Environmental, social, economic, and political problems associated with the coastal zone.
- E. Protection against the ravages of nature and man on the coast.

V. Procedures, Techniques, and Methods

Classroom presentation; laboratory analyses; and interpretation of field-collected data.

## VI. Instructional Materials

Topographic maps and bathymetric charts, field sampling equipment; mechanical shaker and sieves; binocular microscopes; general laboratory equipment and supplies; library resources including coastal agency reports and new clippings of the state's coastal problems.

## VII. Basic Requirements for Completion of the Course

Reports on field and laboratory investigations. Completion of assigned outside readings. Mid-term and final examinations.

## VIII. Text:

Bascom, W., 1964. Waves and Beaches . Anchor Books . New York

## IX. Bibliography

Allen, J. R., 1973. Beach Dynamics along Sandy Hook, New Jersey. Unpublished PH.D. Dissertation, Dept. Geog., Rutgers Univ., New Brunswick, NJ

Chapman, V.J. 1960. Salt Marshes and Salt Deserts of the World. Interscience Publishers. New York.

Dolan, R. and Hayden, B. 1981. Storms and Shoreline Configuration. Jour. Sed. Petrol. v. 51. p. 737-744.

Ingle, J.C. 1966. Movement of Beach Sand. American Elsevier. New York.

Johnson, D.W. 1965. Shore Processes and Shoreline Development. Hafner Pub. Co., New York.

King, C.A.M. 1960. Beaches and Coasts. St. Martins Press, NY

Koman, P.D. and Cui, B. 1984. The Analysis of Grain-Size Measurements by Sieving and Settling-Tube Techniques., Jour. Sed. Petrol. v. 54, p. 603-614.

Lauff, G.H. (ed.) 1967. Estuaries. American Association for the Advancement of Science., Washington, D.C.

Mazzullo, J. and Kennedy, S.K. 1985. Annotated Measurement of the Nominal Sectional Diameter of Individual Sedimentary Particles., Jour. Sed. Petrol. v. 55, p. 593-595

IX. Bibliography, Continued

- McLaren, P. and Bowles, D. 1985. The Effects of Sediment Transport on Grain-size Distribution., Jour. Sed. Petrol. v. 55, p. 457-470.
- McMannus, D.A. 1982. Phi and Sediment Size Analysis: Discussion. Jour. Sed. Petrol. v. 52, p. 1011-1026.
- McMaster, R.L. 1954. Petrography and Genesis of the New Jersey Beach Sands. Geol. Ser., Bull. 63., N.J. Dept. Conserv. Econ. Dev.
- Meneke, W. 1984. Sieve Analysis as Tomography., Jour. Sed. Petrol. v. 54., p. 1358-1364.
- Nordstrom, K.F. 1975. Beach Dynamics and Sediment Mobility on Sandy Hook, New Jersey., Rutgers Univ. Mar. Sci. Center Tech., Rept. 75-3.
- Pottenger, F.M., et al. 1979. Coastal Problems and Resource Management., Curriculum Development and Research Group, University Hawaii.
- Psuty, N.P., Nakashma, L. and Theokritoff, G. 1980. Coastal Dynamics and Environments on Sandy Hook. New Jersey in Manspeizer, W., ed. Field Studies of New Jersey Geology and Guide to Field Trips., 52nd Ann. Mtg., NY State Geol. Assoc., Rutgers University, Newark, NJ., p. 132-143.
- Shepard, F.P. et al. 1960. Recent Sediments, Norwest Gulf of Mexico., American Association Petroleum Geologists., Tulsa, Oklahoma.
- Shepard, F.P. 1963. Submarine Geology., Harper and Row., NY
- Stanley, D.J. (ed.) 1969. The New Concepts of Continental Margin Sedimentation., American Geological Institute., Washington., DC.
- Sverdrup, H.V., Johnson, M.W. and Fleming, R.H. 1942. The Oceans., Prentice-Hall, Inc., NY.
- Zenkovich, V.P. 1967. Processes of Coastal Development., John Wiley & Sons., Inc., NY.

Selected journal and book references on pertinent topics.