MEMORANDUM

To: The Faculty  

From: Bishop Hunt,  
Faculty Secretary  

About: General Faculty Meeting

The second and concluding regular meeting of The Faculty of The College of Charleston for 1995-1996 will convene at 5:00 p.m. on MONDAY, April 22 in the recital hall of the Albert Simons Center for the Arts.

Agenda

Speaker's Report

Approval of Degree Candidates

Election of Faculty Committees.

Note: since the original list of candidates was circulated, additional nominations have been received for two committees (Nominations and Welfare). In addition, there is a replacement for the Library Committee. The slates for these three committees now read:

COMMITTEE ON NOMINATIONS & ELECTIONS:  
(7 of these 10 to be elected:)

Bakanic, Von  Sociology/Anthropology  
Caveny, Deanna  Mathematics  
Daniels, Roger  Business & Economics  
Fronabarger, Kem  Geology  
Hunt, Caroline  English & Communication  
Lesses, Glenn  Philosophy/Religious Studies  
Kinard, Frank  Chemistry  
Newell, John  History  
Steuer, Faye  Psychology  
Ward, Patricia  English & Communication

OVER
### WELFARE
(8 of these 9 to be elected):

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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</thead>
<tbody>
<tr>
<td>Bowers, Terry</td>
<td>English &amp; Communication</td>
</tr>
<tr>
<td>Cossa, Frank</td>
<td>Art History</td>
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<tr>
<td>Fronabarger, Kem</td>
<td>Geology</td>
</tr>
<tr>
<td>Gurganus, Susan</td>
<td>Educational Foundations &amp; Specializations</td>
</tr>
<tr>
<td>Krantzman, Kristin</td>
<td>Chemistry</td>
</tr>
<tr>
<td>Liu, Guoli</td>
<td>Political Science</td>
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<tr>
<td>Marban, Dorothy</td>
<td>Spanish</td>
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<tr>
<td>May, Kim</td>
<td>Psychology</td>
</tr>
<tr>
<td>Nations, Harold</td>
<td>Physics &amp; Astronomy</td>
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### LIBRARY
(7 faculty members; slate includes one replacement):

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Carter, James</td>
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<td>Holman, Robyn</td>
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<td>Lott, Bret</td>
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<td>Nichols, Shaun</td>
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<td>Russell, Robert</td>
<td>Art History</td>
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<td>Toris, Carol</td>
<td>Psychology</td>
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<tr>
<td>Wiseman, D. Reid</td>
<td>Biology</td>
</tr>
</tbody>
</table>

*Nominations for Faculty Committees are now closed. The Committee on Nominations and Elections, and the Welfare Committee, will be elected by ballot at the April 22 Meeting.*
MEMORANDUM

April 9, 1996

To: The Faculty

From: Bishop Hunt,
Faculty Secretary

About: Meeting

The second session of the eighth and final regularly-scheduled meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, April 16 in Maybank 100.

Agenda

Speaker's Report

Academic Standards Committee: "Students who may participate in the commencement ceremony"

Curriculum Committee: Proposes
-Italian Studies Minor ✓
-Italian 361, 362 Survey of Italian Literature I & II (New) ✓
-Italian 452 Twentieth Century Italian Literature (New) ✓
-Spanish 381 Introduction to Spanish Linguistics (New) ✓
-Biol 445 Systematic Biol (New) ✓
-Psyc 313 Sensation & Perception (New)
-Psyc 366, 372, 380, 382, 399, 400, 401, 402, 403, 499 (Changes)

Constituents' Concerns

Remaining Regularly-Scheduled Meetings for Spring, 1996

Faculty Senate: April 16 (Maybank 100)
Full Faculty: Monday, April 22 (Recital Hall, Simons Center for the Arts)
Faculty Senators, this is
for your information. Any comments or concerns
should be brought to my attention.

March 11, 1996
Bob Mignone

To: Bob Mignone
Speaker of the Faculty

Herb Silvennan
Chair, Bylaws and Faculty Manual Committee

Fr: Conrad D. Festa
Provost

Re: Changes to the Faculty Manual

Please ask the Bylaws and Faculty Manual Committee to review and comment on
the following proposed changes to the Faculty/Administration Manual. I would like to have the
committee's comments and any suggestions for modifications by the end of the semester.

1. Add “If a department is reviewing more than one candidate for tenure,
promotion or third year, the same individual from outside the department
sits with departmental panel members for all cases.” (p. 97, M. 4., third
paragraph, after the first sentence)
Justification: This addition is a clarification of procedures that have existed
for many years. The use of a single outside person is bureaucratically
simple. The outside person becomes more knowledgeable about
departmental expectation and is there to see that the department applies the
same standards and procedures for all the cases under review.

2. Delete “Promotion to senior instructor will occur only upon the positive
recommendation of the departmental tenure and promotion panel.” (p. 18)
Justification: Instructors should undergo the same review process as other
faculty. (N.B., this item was approved and sent to me by the Faculty
Senate.)

3. Add “Instructors and senior instructors will be granted full privileges in all
matter of faculty governance, except that departments may restrict their
voting privileges in personnel matters.” (p. 17)
Justification: Instructors and senior instructors should have the opportunity
to participate fully in the governance of the College and the departments. (N.B., this item was approved and sent to me by the Faculty Senate.)

4. Add “Adjunct faculty positions do not normally carry rank. Any department may, however, recommend to a dean that the appointment have professorial rank. A dean may confer professorial rank.” (p. 19)
Justification: Some adjunct faculty have sufficient experience and standing in the professional community to warrant titles such as “Adjunct Professor of English”.

5. Add “Any member of the department who is being considered for promotion will deliberately disqualify himself or herself from serving on his or her own panel or that of a colleague who is being considered for promotion to the same or higher rank within his or her department.” (p. 97, M. 4., at the end of the first paragraph)
Justification: Omitted from the new edition of the manual by mistake.

6. Add “The department chair has the responsibility to determine whether any combination of experience and other academic preparation is the equivalent to graduate work and to file in the Office of the Provost a memorandum of justification including (if warranted) translation and certification of foreign degrees.” (p. 62, IV. D. 2).
Justification: Sometimes this requirement has been overlooked in the past.

7. Add “The exact procedures and criteria for sabbatical leave may be found in the Academic Affairs Policy Manual (Policy # 2 — Sabbatical Leave Policy). An application packet, including a cover letter addressed to the President, should be submitted to the Office of the Provost. All recipients of sabbatical leave must submit a Final Report to the Provost within two months after returning to the College describing all activities and work conducted during the sabbatical leave as well as the degree of success achieved in meeting the obligations set forth in the application.” (p. 126)
Justification: The reference to the policy manual guides faculty to exact procedural information.

8. On the section of the manual IV B Sexual Harassment Policy

Delete the footnote at the bottom of the page. Justification: the policy is no longer under review. It has been developed and reviewed by the faculty and administration. It has been approved by the president.

Delete section IV B 3 (p. 59).
Justification: No single office is responsible for informing students, faculty and staff about sexual harassment. Various institutional officers including but not limited to the Office of Human Relations and Minority Affairs, the
Provost, the Director of Human Resources and the Vice President for Student Affairs have this responsibility.

Delete the language under section IV B 5. Add "The alleged victim (or complainant) of sexual harassment should utilize the process outlined in Appendix C to seek resolution of a complaint. The alleged victim (or complainant) has various options including resolution prior to the complaint phase using trained sexual harassment liaisons, filing a written complaint culminating in informal resolution, and filing a written complaint culminating in formal resolution." (p. 59-60). Renumber this section as section IV B 3.

Add to section IV B 4 "The Vice President for Legal Affairs also may be consulted concerning this area."

Justification: Similar language is already in the manual but recommended for deletion (see above) (p. 59)

9. Add to section IV S (p. 115)

"TERMS OF FACULTY EMPLOYMENT AND WORKLOAD"

1. Terms of Instructional Faculty Employment

Unless otherwise specified in the appointment document, members of the faculty are compensated for 39 weeks, i.e. nine months of service to the College, from August 15 of one year to May 15 of the next.

2. Instructional Faculty Workload

Faculty at the College of Charleston are employed by the State of South Carolina to provide instruction to students. Faculty must also provide academic consultation including individual instruction and holding open office hours for student advising. The state has defined the College as one of its senior colleges/universities, characterized by relatively comprehensive degree offerings at the baccalaureate level, and by offering some graduate programs below the doctoral level in fields where the institution has unusual competence and in which the local demand is high and cannot be more effectively met by other means. Faculty members are also required to engage in research activities and other forms of professional development as well as render service to the institution and the community.

The formula used by the Commission on Higher Education (CHE)
to determine the allocation of state funds to senior
colleges/universities, computes one full-time faculty member
equivalent (FTE), as 12 contact hours per week of classroom
instruction per semester for two semesters. It does not differentiate
between undergraduate and graduate instruction. The formula
assumes, therefore, that each faculty member will provide 12
contact hours of instruction in both the Fall and Spring semesters.
It thus does not take into account advising, administrative duties,
research, or other professional development activity, committee
activity, or community activity that faculty are required to do in
addition to or in lieu of the instructional workload.

The Provost delegates to the Deans of the Schools the
responsibility for determining instructional faculty workload within
the schools provided the following basic premises are met:

1. Role and Mission

   Faculty teaching workload is both driven by the mission of
   the College of Charleston and reflective of student needs.
   The courses faculty teach sustain the institution’s
   fundamental commitment to the curricular requirements for
   general education as well as the specialization in the major.

2. Budgetary Efficiency/Resources

   Teaching workload should be managed by the Provost, the
   Deans and the Department Chairs so that it links
   institutionally desired outcomes for efficiency and access
   with revenues. The Provost has the additional responsibility
to make every effort to place in the hands of Deans and
Department Chairs the resources in roster faculty and
adjunct funding that they need to fund their staffing plans.
Once the budget for instruction and the enrollment goals are
agreed upon, it becomes the Deans’ responsibility to ensure
that there are adequate numbers of courses for students to
take.

3. Access

   The College of Charleston remains committed to teaching in
smaller classes where students can easily interact with
faculty. The number of upper and lower division course
offerings in all departments should be carefully determined
based on the role a department plays in relation to general
education requirements, number of majors and whether the department has other graduate programs. Deans and Department Chairs have the responsibility of assuring that there are sufficient numbers of classes and sections to meet anticipated enrollments at appropriate sizes and levels.

4. Governance

The responsibility for developing written procedures for determining teaching workload lies with each school. The Provost approves each school workload policy. Approved procedures for each school are appended to the Faculty Administration Manual.

In addition the following instructional workload requirements must be met:

1. The official teaching workload of the College of Charleston remains twelve contact hours.

2. Faculty whose teaching workload is less than 12 contact hours are expected to engage in significantly more research or to be given significant additional assignments within the department as a direct result of having their normal teaching workload reduced.

There are a number of issues and factors that affect an individual faculty member's teaching workload. Deans and especially Department Chairs have the additional responsibility to consider the individual teaching workloads of faculty members in light of the these variables. One of the purposes of school-wide teaching workload procedures is to temper concerns for access and productivity with a concern for equity.

- number of courses
- number of credit hours/credit hrs. per course
- number of contact hours
- number of preparations
- number of upper/lower division courses
- number of students
- instructor of record by type- roster faculty, senior instructor, visiting, full-time or part-time adjunct, teaching assistant
- unique courses (seminars, independent study, bachelor's essay, laboratories, studios, double sections, internships, interdisciplinary
courses, team-taught courses, study abroad courses)
-consulting, grants (reduced load)
-off campus, evening courses
-undergraduate/graduate courses
-administrative assignments
-leaves of absence; sabbaticals
-roster faculty compared to adjunct faculty workloads
-calculation of research and service components (especially advising) in relation to teaching component for overall workload
-class time (9am to 1pm better than 8am and evenings or off campus)
-differences in assignments and grading methods (essay examinations test bank questions that accompany a text)
-test characteristics (unique and new are more time consuming than recycled tests, assignments)
-time required for team of professors to coordinate the course and collaborate on grading (as opposed to situations where individual faculty conduct discrete portions of a course)
-number of major advisees
-number of non-major advisees or time committed to advising center
-number of office hours per week held
-number and type of special assignments undertaken.

3. **Terms of Library Faculty Employment**

Unless otherwise specified in the appointment document, members of the library faculty are compensated for a twelve month period, normally July 1 to the following June 30.

4. **Library Faculty Workload**

Library faculty at the College of Charleston are employed by the state of South Carolina to provide and promote quality library services and operations to the academic community. Librarians have position-titles and job descriptions which describe their particular roles in the operation of the library. In addition to this workload, all library faculty are expected to attend meetings of the full voting faculty and meetings of the library staff as called, to participate in the governance of the institution through membership on College faculty and library committees, to advise undeclared majors as requested by the Deans of Undergraduate Studies and to remain current in their specializations with library and information science. The compensation library faculty members receive is for their workload described in their job descriptions and all other duties.
5. **Paid Institutional Overload and Other Dual Employment**

The State Budget and Control Board issued administrative procedures and compensation limitations effective August 24, 1994 which are applicable to all state employees, including College of Charleston personnel, coming under dual employment situations. College of Charleston faculty may not earn more than an additional 30 percent of their base salary during the time they are under contract. Dual employment regulations apply to the employment of roster status faculty members and unclassified administrators who, in addition to the work for which they receive full-time pay, also teach courses in the day or evening, workshops, Governor's School, the Maymester Program or who perform other additional services beyond the duties described in their letter of appointment or annual contract. The additional services can be performed within the College of Charleston, or at another state college, university or agency. Grant and contract work compensated by outside agencies is included in the dual employment limitations. Because the federal government and the State of South Carolina have laws governing the form and nature of employee compensation, the controller has ruled that it is not permissible for a faculty member to teach an overload course and, rather than receive additional pay, be given credit in his/her department budget for the purchase of equipment or other department expenditures.

6. **Instructional Faculty Members’ Employment in Summer Terms**

The teaching of summer school by faculty under nine-month contract is not considered dual employment, but compensation limitations as defined by state regulations are applicable. State policies and procedures are maintained by the Personnel Office." (p. 115 and ff)

Please note that the President and I have approved the following changes that the Faculty Senate has voted on and approved over the course of the year to the Faculty Bylaws. They will be distributed to faculty at the beginning of the Fall semester.

1. Add “A candidate for the position of Speaker cannot be a candidate for an

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Section 702.09 of the *State Human Resource Regulations* (1994) provides that the College of Charleston faculty may not earn more than an additional 15% of their base pay for the immediately preceding academic year “for regular summer session.” Thus, faculty who contract only for the nine-month academic year may earn up to an additional 30% for all summer school teaching during the various Maymester and summer sessions. Each single summer session, however, is limited to 15 percent.
at-large senate seat in the same election. In the event that a candidate for Speaker is in the middle of a term as an at-large senator and wins the election for Speaker, of those unsuccessful in the election for at-large seats, the person obtaining the most votes will complete the second year of the Speaker-elect’s term.” (Article IV, Section 2C6)

2. Replace 1st sentence “Nominations may made by faculty either at the April Senate meeting or by submission in writing to the Speaker at least 10 days prior to the April faculty meeting.” (Article V, Section 3.B.1.b)

3. Make the Registrar an *ex officio* member of the Curriculum Committee and the Committee on Graduate Education.

4. Replace “April” and “May” in Article V, Section 2A, and Section 3A with “March” and “April”.
Speaker’s Report

1) Fourth Annual Holocaust Memorial Observance
2) Gesture of support for Kevin Baltimore
3) Workload Policy memo from Academic Affairs
4) Report from the Committee on Tenure, Promotion and Third-Year Review.
5) Report from the Welfare Committee on (i) Retirement and (ii) Faculty and Administrative Salaries
Speaker's Report

1) Report from the Committee on Tenure, Promotion and Third-Year Review.

2) Report from the Welfare Committee on (i) Retirement and (ii) Faculty and Administrative Salaries
MEMORANDUM

TO: Dr. Bob Mignone, Speaker of the Faculty

FROM: Advisory Committee on Tenure, Promotion and Third-Year Review:

Marion Doig, Chair of the Panel and Professor of Chemistry
James Care, Professor of Geology
Caroline Hunt, Professor of English
David Kowal, Professor of Art History
Gary Tidwell, Professor of Legal Studies

DATE: March 30, 1996

1. Pursuant to the requirements of paragraph E, article 5, chapter 3, of the Faculty/Administration Manual (page 41), this document constitutes the committee's written report to the faculty.

2. Consistent with our obligations outlined in the Faculty/Administration Manual, this committee met during the first three months of 1996 to "review each school and departmental recommendation involving tenure and promotion." In the course of our review, and consistent with the College of Charleston Faculty/Administration Manual, we determined "whether the school or department had duly considered the standards, criteria, and evidence established by the College, the school, and the department in evaluating the candidate(s), and determine(d) whether the school or department had followed the procedures established by the College for evaluating the candidate(s)."

3. Specifically, the committee reviewed the application packets of eight (8) faculty members seeking promotion to Professor, and recommended that seven (7) be promoted to that rank. The committee also reviewed the applications of nine (9) Assistant Professors seeking promotion to Associate Professor, and recommended that all nine (9) be promoted to that rank. The committee reviewed the applications of five (5) Assistant Professors seeking both tenure and promotion to Associate Professor, and recommended that two (2) of them be tenured and promoted. The committee reviewed the applications of two (2) Assistant Professors seeking tenure, and the committee recommended that both be granted tenure. Finally, the committee reviewed the application of one (1) faculty member
for promotion to Senior Instructor, and recommended the promotion to Senior Instructor.

4. In addition, the committee was asked by the President and the Provost to consider the promotion of two (2) additional faculty members outside the normal procedures: one to Associate Professor, and the other to Professor. As discussed more fully below (see paragraph six), these promotions were initiated by the Administration, and consequently the candidates did not submit traditional and timely packets evidencing that they had met the criteria in the Faculty/Administration Manual and/or departmental requirements for promotion. The committee returned one incomplete packet; in the second case, the committee recommended against promotion.

5. Having reviewed 27 tenure and promotion cases, the committee makes the following comments and observations:

A) It is imperative that at all levels of the review process the procedures, criteria, and requirements found in the Faculty/Administration Manual and departmental guidelines be followed. The approval of candidates for third year review determinations, conferrals of tenure, and promotions are premised upon the assumption that the individual candidate has clearly met the standards and followed the procedures outlined in the Faculty/Administration Manual. Those who fail to follow the letter and the spirit of the Faculty/Administration Manual compromise their chances of a favorable review.

B) On occasion, the committee has found that Deans and Department Chairs have been less than candid in their written comments and oral presentations to the committee. Presentations that are less than honest may do a disservice to the candidate, and such behavior also impinges upon an administrator’s credibility in subsequent cases.

C) In spite of Dr. Festa’s letter of August 9, 1995, many panel chairs failed to provide a balanced account of departmental panel discussions. Specifically, the Provost’s letter indicated that panel Chairs "should write letters which while maintaining the confidentiality of the meeting, summarize all of the discussion that takes place in deliberations." This made the committee’s work more difficult, as it was sometimes impossible to tell whether certain issues of a candidacy had been addressed by the panel.

D) The committee regards teaching as the most important duty and responsibility of all faculty members. Unfortunately, evidence of teaching effectiveness found in a candidate’s packet was often insufficient. Typically, more recent graduate evaluations are needed than most packets provided. Though not required by the Manual, information that results from classroom visitations by colleagues is helpful. Complete sets of student evaluations from all classes and sections are needed to help determine teaching effectiveness. Syllabi and exams are also used by the committee to examine teaching effectiveness. Both evaluations and course
materials were sparse in some packets.

E) The committee found that external (outside the College of Charleston) letters of evaluation of a candidate’s research and publications were very helpful. Although not required, external letters of evaluation of scholarly work are therefore strongly recommended. Candidates must also provide clear and convincing evidence that no fewer than two publications are peer refereed. If the mastheads do not clearly indicate that a candidate’s article was peer refereed, then correspondence from the journal is needed to prove the peer refereed status of the article.

F) The committee has recommended to the Provost that no additions be made to a candidate’s packet after it has been submitted to the departmental panel. The Provost should set and publish a specific deadline for submission of a packet to the departmental panel. Consequently, candidates should submit all evidence related to evaluation for third year review, tenure and promotion not later than the date established by the Provost, and no one, including the candidate, Chair, Dean, Provost, and President, should add to the packet, or consider additional evidence not provided by the deadline date.

6. The committee seeks guidance from the Faculty Senate concerning the propriety of the Administration initiating and determining the promotion of faculty members outside the normal promotion procedures and outside the criteria required for promotion by the Manual or by the respective department. While the Faculty/Administration Manual provides that "the President retains the power of approval" (emphasis supplied) for third year review determinations, conferrals of tenure, and promotions," the committee believes that all candidates must not only satisfy the stated criteria for third year review, tenure, and/or promotion, but must also comply with the procedures outlined in the Manual. The committee believes that all tenure and promotion decisions should be entertained through the normal and usual procedures and should be evaluated by the criteria provided in the Manual. It may be argued that tenure or promotion decisions initiated by the Administration outside the normal procedure (and for which there are no stated criteria) will ultimately result in a precedent that is bad for the morale of those faculty who are attempting to comply with the provisions of the Manual. Such decisions are fundamentally unfair to those who fail to receive a favorable decision because it is determined that they did not comply with the requirements of the Manual. The practice of making tenure and promotion decisions outside the provisions of the Manual, though valid de facto in cases already past, should now be discontinued.

It is the committee’s view that awarding tenure or promotion outside of the procedures and requirements outlined in the Manual is a very unwise practice.
It is especially unwise given that there are no existing procedures or standards for determining favorable personnel decisions other than those provided by the Manual, and that such a practice would be subject to abuse by future Presidents and Administrators. Consequently, we respectfully recommend that the Administration not make such decisions, and we seek guidance from the Faculty Senate concerning the propriety of such actions.

7. At an appropriate time, we also seek guidance from the Faculty Senate concerning whether the Manual should be amended to provide that evaluation panels for promotion be composed only of faculty members who are tenured and hold the rank being sought, or a higher rank. (For instance, a panel for a candidate seeking promotion to the rank of Professor would consist only of tenured Professor.)
The Faculty Welfare Committee recently met with Dollie Bond, Director of Human Resources, to discuss questions about retirement raised by faculty members.

What retirement plan options are available to current faculty members? Faculty members assigned to the SC Retirement System upon employment cannot change retirement plans. More recently hired faculty members who elected a retirement plan (SC Retirement System or an optional plan) when they were first employed cannot change between the SC Retirement System and optional plans. However, employees who selected one optional plan can change companies (check with the Office of Human Resources). There are a number of other options for deferring compensation (before taxes) through the SC Deferred Compensation Program and other programs. Each of these plans offers a variety of investment options including CDUs, mutual funds, and universal life and can be payroll deducted.

How does a faculty member’s salary affect his or her retirement benefits? The State retirement benefit formula is based on the total of the employee’s highest 12 consecutive quarters of salary. Each quarter’s salary base includes wages actually paid to the employee during the quarter, not by contract period. Quarters are January-March, April-June, July-September, and October-December. Professors who do not teach between May 15 and August 15 during the period of employment with the highest salary may have a lower benefit basis during (up to) six of their twelve consecutive quarters. The effects of summer employment on the retirement benefit formula during the years of highest compensation is so tricky, employees should seek individual retirement counseling.

How do employees with vested time in retirement systems of other states, the military, or the federal government purchase all or part of their service time elsewhere? Service may be purchased at any one time while an active member of the SC retirement system at a cost of 12% of the highest annual salary of the last three years per each year purchased. A limited payment plan is available. Employees who are members of the state retirement system may elect to roll over employee-paid benefits from another state or federal retirement system as part of their purchase. In order to draw benefits, the employee must have one year of in-state service for each year of out-of-state service established. For additional information, brochures and personal assistance are available through the Office of Human Resources.

The Welfare Committee recommends that department chairs send retirement and other benefit information to new faculty members as early as possible so that they can have more time to make decisions—especially regarding retirement. Each individual employee’s circumstance varies such that one plan will not be the best choice for all.
15 April 1996

Faculty Welfare Committee
1995-1996

Susan Gurganus, EDEE, Chair
Kim May, PSYC, Secretary
Dorothy Marban, SPAN
Bill Moore, POSC
Carolyn Russell, ENGL
Jim Deavor, CHEM
Harold Nations, PHYS
Abdul Aziz, BADM

The annual Faculty Welfare Committee salary report is attached. The first two pages comprise summary statistics from the American Association of University Professors' annual report. It should be noted that the College of Charleston is considered a IIA Comprehensive Institution by the AAUP, not a general baccalaureate institution as was referenced in a recent salary report by the Post & Courier (3/17/96).

The data beginning on the third page of this report are actual salaries of faculty members who earn $50,000 or more annually and $4000 ranges for other faculty. In comparing the salary ranges of Faculty Member A (listed as 30-34 or $30,000 to $33,999) with Faculty Member B (listed as 34-38 or $34,000 to $37,999), realize that the actual salaries may differ by $1.00 or $7,999. Faculty members are grouped by school and department according to rank with chairs grouped separately.

The complete report from the South Carolina Budget and Control Board, including administrative salaries and those of classified employees, is located at the reference desk of the library. Previous years' reports are there also.

Please be aware that the committee attempted to check and double-check this information. We found many discrepancies in the report from the Budget and Control Board and have tried to correct those. If other mistakes are noticed, please contact one of the committee members listed above.
### 1995-1996 Faculty Salaries

<table>
<thead>
<tr>
<th>Average Salary by Rank</th>
<th>National (IIA) Public Institutions</th>
<th>South Atlantic States (IIA)</th>
<th>College of Charleston</th>
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<td>58,520</td>
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<td>46,860</td>
<td>45,370</td>
<td>44,500</td>
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<td>Assist.</td>
<td>39,000</td>
<td>38,140</td>
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<td>Instr.</td>
<td>30,120</td>
<td>29,730</td>
<td>27,600</td>
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### Average Salary by Rank and Gender

#### Men

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<td>52,100</td>
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<td>Assoc.</td>
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<td>Assist.</td>
<td>39,860</td>
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<td>35,200</td>
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<td>Instr.</td>
<td>31,450</td>
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<td>29,600</td>
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#### Women

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<th>Rank</th>
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<th>South Atlantic States (IIA)</th>
<th>College of Charleston</th>
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<tr>
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<td>52,700</td>
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<tr>
<td>Assoc.</td>
<td>45,360</td>
<td></td>
<td>42,300</td>
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<tr>
<td>Assist.</td>
<td>38,000</td>
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<tr>
<td>Instr.</td>
<td>29,280</td>
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<td>27,000</td>
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</tbody>
</table>

### Average Compensation by Rank (Salary and Benefits)

<table>
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<th>Rank</th>
<th>National (IIA) Public Institutions</th>
<th>South Atlantic States (IIA)</th>
<th>College of Charleston</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof.</td>
<td>72,730</td>
<td>69,680</td>
<td>64,000</td>
</tr>
<tr>
<td>Assoc.</td>
<td>58,870</td>
<td>56,360</td>
<td>54,900</td>
</tr>
<tr>
<td>Assist.</td>
<td>49,190</td>
<td>47,570</td>
<td>43,500</td>
</tr>
<tr>
<td>Instr.</td>
<td>38,090</td>
<td>37,620</td>
<td>35,000</td>
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</table>

### Percentage Increase in Mean Salaries (94-95 to 95-96) (inflation = 2.5%)

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<tr>
<th>Rank</th>
<th>Percentage Increase</th>
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<td>2.4%</td>
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<tr>
<td>Assoc.</td>
<td>2.2%</td>
</tr>
<tr>
<td>Assist.</td>
<td>2.2%</td>
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<tr>
<td>Instr.</td>
<td>2.8%</td>
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(Note: The above data are comparisons of last year’s means and this year’s means, not the percentage increase in individual salaries.)

### Rating of Average Salaries by Rank (National IIA Comparison)

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<th>Rating</th>
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<tr>
<td>1 *</td>
<td>95th percentile or above</td>
<td>Prof. 4</td>
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<tr>
<td>1</td>
<td>80th percentile to 94.9 percent</td>
<td>Assoc. 3</td>
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<tr>
<td>2</td>
<td>60th percentile to 79.9 percent</td>
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<tr>
<td>3</td>
<td>40th percentile to 59.9 percent</td>
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<td>4</td>
<td>20th percentile to 49.9 percent</td>
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<td>5</td>
<td>lower than 20th percentile</td>
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Data are from the Mar/Apr 1996 Academe, Bulletin of the American Association of University Professors.
For interpretation of individual salaries by rank by intervals:
(IIA Institutions in the Nation)

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<tr>
<th>Salary interval</th>
<th>Percentage of individuals with salaries lower than interval</th>
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<td><strong>Full Professors</strong></td>
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<tr>
<td>&lt; 44,000</td>
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<tr>
<td>47,000</td>
<td>8.8%</td>
</tr>
<tr>
<td>49,000</td>
<td>16.3%</td>
</tr>
<tr>
<td>50,000</td>
<td>21.3%</td>
</tr>
<tr>
<td>55,000</td>
<td>42%</td>
</tr>
<tr>
<td>60,000</td>
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<tr>
<td>70,000</td>
<td>77.4%</td>
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<tr>
<td>80,000</td>
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<tr>
<td><strong>Associate Professors</strong></td>
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<tr>
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<td><strong>Assistant Professors</strong></td>
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<tr>
<td>34,000</td>
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*Adapted from Table 8 (p. 30) *Academe* (March/April 1996) of individual salary data from 1,508 schools. *Academe* is available in the College library or by membership in AAUP.
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Gender Codes: 0 = male, 1 = female
Ranges: For salaries less than $50,000, the Budget and Control Board releases only salary ranges of $4,000.
THE COLLEGE OF CHARLESTON
CHARLESTON, S.C.

Proposal to the Faculty Senate
Re: Students who may participate in the commencement ceremony

To most students and their families, the commencement ceremony represents the culmination of the student’s undergraduate career. In practice, there are some students for whom, due to incomplete documentation, only tentative degree verification can be provided before commencement. In addition, there is always a handful of students participating in the ceremony who have not completed all their degree requirements but whose status could be described as “all but done.” These students are permitted to walk either by hiccups in the system or because of extenuating circumstances. In acknowledgement of this, the printed program for the commencement ceremony carries an explicit disclaimer that while “[a]ppearance of a name on this program is presumptive evidence of graduation...it must not be regarded as conclusive.” In an effort to address the inconsistencies of current procedures, the Faculty Committee on Academic Standards, Admissions and Financial Aid proposes that the following criteria be used to determine which students be allowed to participate in the December and May commencement ceremonies.

- A student may participate in the commencement ceremony at the end of any given semester if he or she either has completed all graduation requirements or satisfies all of the following three criteria:

  1. At the beginning of the semester immediately preceding the commencement ceremony, the student has a cumulative GPA of 2.0 or better, as well as a GPA in the student’s major of 2.0 or better.
  2. After the final withdrawal date in the semester immediately preceding the commencement ceremony, the student is registered in all courses required for the completion of his or her degree, but is not registered in more than 18 hours of courses.
  3. The student has received a failing or incomplete grade in no more than 4 hours of coursework taken during the semester immediately preceding the commencement ceremony.

- All students who have filed an application for graduation through the Office of the Registrar will be notified in writing of these criteria and of their status with regard to graduation. This notice will explicitly warn students who do not meet all of the above criteria that if they make graduation plans, they do so at their own risk.
Rationale

The degree check to determine who may participate in the commencement ceremony is typically completed by between 2 and 4 days before the ceremony (for example, 2 days in Fall 1995 and 4 days this semester). At that time, the Deans of the various schools try to contact by phone those students who have failed to graduate. It is not unusual that, at such short notice, the student’s family plans cannot be canceled. Even if they can, and although the student’s failure may not come as a great surprise, the very short notice of the current procedure results in at least considerable inconvenience for the student’s family, and quite often considerable ill will directed at the College.

Given the haste in which the checking process must be carried out, it is inevitable that, despite the diligent efforts of administrators and faculty, some mistakes will be made, both in denying permission to some students who have in fact completed their degrees and in granting permission to others who have not. The proposed criteria for participation in the commencement ceremony expand the class of eligible students to include a small group of students who are all but done at the time of the ceremony. The Office of the Registrar estimates that, in each of the last three long semesters, there were between 10 and 20 students who failed to graduate but who would have satisfied the above criteria.

The aim of the criteria is to define those students who, by virtue of their GPA and remaining degree requirements at the beginning of the semester, have a reasonable expectation of graduating. The second and third criteria are intended to prevent students from loading up with classes in their final semester for the express purpose of being allowed to participate in commencement.

It has been argued that to allow nongraduates to participate in commencement would devalue the ceremony for those who are truly graduating. The SGA was asked for their input on the above proposal, especially with regard to this issue, and the senate of the SGA gave the proposal its unanimous support.

The proposed procedures will give students early warning of exactly where they stand. In addition, the College will be making a gesture of goodwill to its students and their families by allowing students who have a reasonable expectation of graduating to carry through with their commencement plans.

As an attachment you will find a summary of commencement ceremony policies at some other schools.
Commencement ceremony policies at some other universities and colleges.

- The following universities allow a student to participate in the commencement ceremony if he or she has applied for graduation and is on track to graduate that semester (assuming that the student passes all the courses for which he or she is registered). Final degree clearance is not carried out by the Office of the Registrar until after the commencement ceremony.
  - University of South Carolina
  - Coastal Carolina
  - Lander University
  - University of Georgia
- Winthrop University allows any student to participate who will be within six hours of graduation at the end of the semester.
- Clemson University allows nongraduating students to participate in the commencement ceremony by exception.
MEMORANDUM

TO: Trisha Folds-Bennett  
Chair, Curriculum Committee

FROM: Herbert Espinoza  
Chair, Spanish and Italian Department

This letter should have been included with the 11 copies of the description of our two proposed Minors, one in Italian and the other in Italian Studies, together with the syllabi and CoC forms for the new courses proposed: Italian 361, 362 and 452.

From 1977 to 1993 two Italian courses per semester were offered at the College of Charleston. Since the two instructors teaching those courses had primary responsibilities in other areas (French and Spanish) the program did not have a realistic chance of growing during those years.

In Fall 1993, the Languages Department hired a new faculty member (Massimo Maggiari) to teach Italian on a full time basis. Since Spring 1994 enrollment has grown enough not only to provide a full-teaching load to Professor Maggiari but also to allow him to teach occasionally an advanced course as an overload. Last summer Professor Maggiari organized a Summer Program in Italy where two courses (Italian 328 and 329) were taught.

An informal survey conducted two months ago by Prof. Maggiari showed that there is considerable interest and demand for more advanced studies in Italian. Our recent growth in the Italian program justifies at this time the creation of an Italian Minor. We already have in our catalog five courses (Ital. 313, 314, 328, 329 and 390) which have been taught during the last few years. The addition of three new courses would give students enough offerings to fulfill a Minor in Italian (18 hours). A Minor in Italian Studies, requiring only nine hours of advanced studies in Italian language and literature, could be easily accomplished. This interdisciplinary program would significantly contribute to the internationalization of the College curriculum.

Both the Italian Minor and the Italian Studies Minor offer a balance of language, literature and culture studies which may be complemented (although that is not imperative) by the live-in experience of a Summer Program Abroad. The limited number of students who would enroll in courses outside the Department, in the case of the Italian Studies Minor, would not create any staffing problems. There will not be staffing problems, either, with respect
to the Italian Minor. In Fall 1995 the Spanish instructor who had been teaching Italian courses since 1977 (Jorge Marbán) began to teach again a basic course in Italian as part of his regular load. Professor Marbán is willing to teach a second course in Italian in Fall semesters if the need arises. In that case, an Adjunct will teach one of the Spanish classes normally taught by Professor Marbán.

No additional Library resources are needed at this time. The Division of Languages has provided for years some funds for Italian and other languages without a major program and this practice will continue in the future.
ITALIAN/ITALIAN STUDIES MINOR PROPOSAL

OBJECTIVE: An Italian/Italian studies minor to be offered at the College of Charleston starting with Fall Semester 1996.

ITALIAN MINOR:

The Italian minor is an elective program which provides a structured course of study designed to acquaint students with Italian history, culture, and civilization as well as sociopolitical problems of contemporary Italy. The Italian minor requires 18 credits in advanced Italian courses. Upon completion of the required course work, the Italian minor is certified on the student’s transcript by the Chair of the Spanish and Italian department in consultation with the coordinator of the Italian program.

ITALIAN MINOR SPECIFIC REQUIREMENTS:

Six advanced Italian courses among the following:

Italian 313 Conversation and Composition
Italian 314 Conversation and Composition
Italian 328 Foreign Language Study Abroad (Italy)
Italian 329 Current Issues Abroad (Italy)
Italian 361 Survey of Italian Literature I
Italian 362 Survey of Italian Literature II
Italian 390 Special Topics in Italian
Italian 452 20th century Italian Literature

ITALIAN STUDIES MINOR:

The Italian Studies minor is an elective program which provides a structured course of study designed to acquaint students with Italian history, culture, and civilization, as well as sociopolitical problems of contemporary Italy. The minor is an 18-credit interdisciplinary program which requires work primarily in Italian. Such a minor should include 3 courses in advanced Italian and 3 courses in related fields. Elective courses may be chosen from a number of fields, including English, Art History, Italian, History, Music. Students select courses with and have their minor
approved by the coordinator of the Italian program who also becomes the students' advisor in the minor. Upon completion of the required course work, the Italian Studies minor is certified on the student's transcript by the Chair of the Spanish and Italian department in consultation with the coordinator of the Italian program.

ITALIAN STUDIES MINOR SPECIFIC REQUIREMENTS:

Three Italian courses among the following:

Italian 313  Conversation and Composition
Italian 314  Conversation and Composition
Italian 328  Foreign Language Study Abroad (Italy)
Italian 329  Current Issues Abroad (Italy)
Italian 390  Special Topics in Italian
Italian 361  Survey of Italian Literature I
Italian 362  Survey of Italian Literature II
Italian 452  20th Century Italian Literature

Upon completion of the initial requirement of nine credit-hours, the remaining nine credits may be earned as follows:

One course chosen from courses offered in English in the Italian program:

LITR 350  Dante in translation
LITR 390  Italian Cinema

Prerequisites: ENGL 101 and 102  3 credits

Remaining credits may be chosen from the complementary courses listed below.

History

HIST 336  Italian Renaissance
Prerequisites: HIST 101 or 102, their equivalents, or permission of the instructor

English

ENGL 203  Survey of European Literature (through the Renaissance)
ENGL 204  Survey of European Literature (neoclassicism through 20th century)
ENGL 314 Non-Dramatic Literature of the Renaissance  
Prerequisites: ENGL 101 and 102

Music and Theater

MUSC 337 Opera Literature  
Prerequisites: MUSC 131, 230,  
or permission of the instructor

Arts

ARTH 370 History of Italian Early Renaissance Art

ARTH 375 History of Italian High and Late Renaissance Art  
Prerequisites: ARTH 102  
or permission of the instructor

The following may be substituted for the courses above:  
Directed Readings or additional courses (upon approval by  
the Curriculum Committee) not listed in the current  
Undergraduate Bulletin pertaining to the field of Italian  
Studies.
COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Spanish and Italian

2. Course number and title: Italian 361: Survey of Italian Literature I
   Number of credits: 3
   Total hrs/week: 3
   Lecture: 3
   Lab: 0

3. Course will be offered first: Spring 1997

4. Catalog description (please limit to 50 words):
   Italian literature from the Middle Ages through the 17th century.

Check if appropriate: x Humanities ___ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions): Italian 313, 314 or permission of the instructor

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
      This course is aimed to familiarize students with the most important authors and works in Italian literature.
   (b) How does the course support the mission statement of the department and the organizing principles of the major?
      Knowledge of Italian literature enhances the students' understanding of the development of the Italian culture and language.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course serves as a bridge which builds on 100-, 200-, and 300-level grammar and language courses and prepares students for advanced study at the 400-level in literary studies.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? This survey study of literature gives an overview of Italian culture from its origins to the XVIIth century. By its nature, it is interdisciplinary.
   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each indicating that the Department has discussed the proposal and supports it.)
      No.

9. Method of teaching: It will be primarily lectures and videos.

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH 1/
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course. It is anticipated that this course will attract students who are interested in a Minor in Italian or students who wish to continue their language studies at the advanced level.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.
None anticipated.

(c) Frequency of offering:  
- each Fall  
- each Spring  
- every two years  
- every 3 years  
- other (Explain _________________________ )

11. Requirements for additional resources made necessary by this course:

(a) Staff  None
(b) Budget  None
(c) Library  None

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair:  _______________________  Date submitted:  1/24/96
14. Signature of School's Dean:  _______________________  Date:  2/21/96
15. Signature of Business Affairs Official:  _______________________  Date reviewed:  _______________________
16. Signature of Curriculum Committee Chair:  _______________________  Date approved:  _______________________
17. Signature of Faculty Senate Secretary:  _______________________  Date approved by Senate:  _______________________

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(For additional copies of this form, please photocopy the blank form. If a diskette for word processing of this form is desired, please send a blank diskette to Tonya Pharr, Undergraduate Studies. This form last revised March 23, 1995 and replaces all others.)
COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Spanish and Italian

2. Course number and title: Italian 362: Survey of Italian Literature II
   Number of credits: 3
   Total hrs/week: 3
   Lecture: 3
   Lab: 0

3. Course will be offered first: Fall 1997

4. Catalog description (please limit to 50 words):
   Italian literature from the 18th century to the present.

Check if appropriate: _x_ Humanities ___ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions):
   Italian 313, 314 or permission of the instructor

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
      This course is aimed to familiarize students with the most important authors and works in Italian literature.
   (b) How does the course support the mission statement of the department and the organizing principles of the major?
      Knowledge of Italian literature enhances the students' understanding of the development of the Italian culture and language.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course serves as a bridge which builds on 100-, 200-, and 300- level grammar and language courses and prepares students for advanced study at the 400- level in literary studies.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
    The survey study of literature gives an overview of Italian culture since the XVIIIth century describing its historical development. By its nature it is interdisciplinary.
   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
      No.

9. Method of teaching: It will be primarily lectures and videos.

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH 1/
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course. It is anticipated that this course will attract students who are interested in a Minor in Italian or students who wish to continue their language studies at the advanced level.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

A senior Spanish professor will teach an additional Italian course when Italian 362 is taught.

(c) Frequency of offering:  
- each Fall
- each Spring  
- every two years
- every 3 years
   - other (Explain _________________________ )

11. Requirements for additional resources made necessary by this course:

(a) Staff An Adjunct will teach the course vacated by the Spanish professor.

(b) Budget $1,700 (to pay for a section taught by an Adjunct.)

   Budget will not need to be increased since this only involves
   - None

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: ___________________ Date submitted: 1/24/96

14. Signature of School's Dean: ______________________ Date: 2/12/96

15. Signature of Business Affairs Official: ___________________ Date reviewed: __________

16. Signature of Curriculum Committee Chair: ______________ Date approved: __________

17. Signature of Faculty Senate Secretary: ___________________ Date approved by Senate: __________

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(For additional copies of this form, please photocopy the blank form. If a diskette for word processing of this form is desired, please send a blank diskette to Tonya Pharr, Undergraduate Studies. This form last revised March 23, 1995 and replaces all others.)
COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Spanish and Italian

2. Course number and title: Italian 452: XXth Century Italian Literature
   Number of credits: 3
   Total hrs/week: 3 Lecture: 3 Lab: 0

3. Course will be offered first: Spring 1998

4. Catalog description (please limit to 50 words):
   Intensive reading and critical analysis of the major works of 20th century Italian literature. Consideration will be given to Moravia, Ginzburg, Buzzati, Montale, Saba, Eco.

Check if appropriate: □ Humanities □ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions):
   Italian 313, 314, or permission of the instructor.

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
      This course is aimed to give an in-depth overview of Contemporary Italian culture.
   (b) How does the course support the mission statement of the department and the organizing principles of the major?
      Knowledge of Contemporary Italian literature enhances the students' understanding of the present status of Italian culture.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course serves as a bridge which builds on 100-, 200-, and 300- level grammar, language and literature courses and represents the most advanced level in the Italian Minor Program.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
   A Study of Contemporary literature gives an overview of Italian socio-economics and values today. By its nature it is interdisciplinary.
   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
      No.

9. Method of teaching: It will be primarily lectures and videos.

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course. It is anticipated that this course will attract students who are going to Minor in Italian or students with language background who wish to explore Italian culture today.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.
None anticipated

(c) Frequency of offering:

- each Fall
- each Spring
- _ every two years
- _ every 3 years
- other (Explain ________________________ )

11. Requirements for additional resources made necessary by this course:

(a) Staff None
(b) Budget None
(c) Library None

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: ________________________________
   Date submitted: 1/2/1996

14. Signature of School's Dean: ________________________________
   Date: 2/21/96

15. Signature of Business Affairs Official: ________________________________
   Date reviewed: ________________________________

16. Signature of Curriculum Committee Chair: ________________________________
   Date approved: ________________________________

17. Signature of Faculty Senate Secretary: ________________________________
   Date approved by Senate:

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

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COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Spanish and Italian

2. Course number and title: SPAN 381; Introduction to Spanish Linguistics  Number of credits: 3
   Total hrs/week: 3 Lecture: 3 Lab: 0

3. Course will be offered first: Fall 1999 (offered Fall 1997 as Special Topics, SPAN 390)

4. Catalog description (please limit to 50 words): An overview of the study of Spanish linguistics, designed to provide a framework for advanced language studies. Content areas include: language change and variation; the Spanish sound system; Spanish morphology, semantics, and syntax; and applied Spanish linguistics.
   Check if appropriate: X Humanities ___ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions): Spanish 313, 314, or 350, or permission of the instructor.

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course? To provide students with an understanding of (1) the field of linguistics and its disciplines, (2) the application of linguistic study to the Spanish language, and (3) a descriptive and scientific approach to "language", the most fundamental tool of human communication.
   (b) How does the course support the mission statement of the department and the organizing principles of the major? Knowledge of the structure of the Spanish language enhances students' understanding and appreciation of its development and usage in both formal literary and cultural contexts as well as informal social contexts.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major? This course serves as a bridge which builds on 100-, 200-, and 300-level prescriptive grammar and skills acquisition and prepares students for successful advanced study at the 400-level in both language and literary studies.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? The study of linguistics involves both a social science and humanistic approach to describing the development, function, and usage of language by human beings. By its nature, language study is interdisciplinary.
   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No.

9. Method of teaching: This course is proposed as a team-taught effort by which two regular faculty members will direct and teach a number of units on their particular emphases within Spanish linguistics; one of the two will coordinate the course. It will be primarily lecture.

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
This course will attract additional students (who may not be interested in Spanish-language literature) to continue their language studies at the advanced level.

Address potential shifts in staffing of the department as it relates to the offering of this course.

A team-taught course will leave one section of a basic course uncovered. One of our Adjuncts will teach that class.

Frequency of offering: ___ each Fall ___ each Spring ___ every two years ___ every 3 years ___ other (Explain ________________________)

Requirements for additional resources made necessary by this course:

(a) Staff ___ An Adjunct will teach a course. ___

(b) Budget $1,700 (to pay for a section taught by an Adjunct.) If enrollment is not large enough the Department Chair will consider the possibility of eliminating the team-teaching arrangement.

11. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

12. Signature of Department Chair: __________________________ Date submitted: ________

13. Signature of School’s Dean: __________________________ Date: __________

14. Signature of Business Affairs Official: __________________________ Date reviewed: __________

15. Signature of Curriculum Committee Chair: __________________________ Date approved: __________

16. Signature of Faculty Senate Secretary: __________________________ Date approved by Senate: __________

17. Signature of Faculty Senate Secretary: __________________________ Date approved by Senate: __________

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department chair
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COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Biology

2. Course number and title: BIOL 445, Systematic Biology
   Number of credits: 3
   Total hrs/week: 3 Lecture: 3 Lab: 0

3. Course will be offered first: Spring, 1997

4. Catalog description (please limit to 50 words):
   An in-depth coverage of the principles of systematics with emphasis on reconstruction of relationships and evolutionary history of organisms. Topics include current theories of systematic and evolutionary biology, methods of phylogenetic systematics, and critical evaluation of phylogenetic hypotheses.

Check if appropriate: ___ Humanities ___ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions):
   Junior standing and at least one upper division course in organismal biology (e.g., BIOL 300 - Botany, BIOL 301 - Plant Taxonomy, BIOL 303 - Phylogeny, BIOL 332 - Vertebrate Zoology, BIOL 333 - Ornithology, BIOL 334 - Herpetology, BIOL 335 - Biology of Fishes, BIOL 336 - Parasitology, BIOL 337 - Invertebrate Zoology).

6. Rationale/justification for course (consider the following issues): (Note: if more space is needed, attach additional sheets to this form).
   (a) What are the goals and objectives of the course?
   To familiarize the student with the principles and methods of systematics and comparative biology that are fundamental to an appreciation and an understanding of organismal biology and evolutionary biology. This course would fill gaps in the current undergraduate and graduate curricula. The course will be especially useful for students conducting research in conservation biology, ecology, organismal biology, or evolutionary biology. Becoming conversant with systematic biology would provide a foundation for many aspects of organismal and evolutionary biology and allow students to approach their research with perspectives not otherwise available.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   Systematic Biology is a major part of the foundation upon which all other areas of biology rest and is of critical importance to ecology, organismal biology, and evolutionary studies. Systematics, by offering insights into the relationships of organisms and their phylogenetic histories, is of preeminent importance in the search for solutions to the biodiversity crisis. Perhaps most importantly from the standpoint of the student, systematics requires its practitioners to think critically, and for that reason alone would be a very valuable addition to the curriculum of biology.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   A course in systematic biology would enhance the middle/end of the major. Systematics places organisms in a context where the totality of their biology (life history, reproductive biology, physiology, and ecology) are important factors in understanding the evolutionary relationships among species. Thus, systematics serves naturally as a capstone experience.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
   This course could be an “attractive” and valuable addition to the curriculum of students majoring in geology who have interests in paleontology and to the curriculum of those in sociology/anthropology with interests in physical anthropology because the principles and the methods of systematics are relevant to and the common property of comparative biology, paleontology, and physical anthropology.
Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
Yes - Geology and Sociology/Anthropology. See attached letters of support.

9. Method of teaching:
Lectures by instructor, student presentations, discussions, and computer-based analyses of problems in systematics. Graduate students will be required to submit a written paper in addition to an oral presentation.

10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course:
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.
(Note: If more space is needed, attach additional sheets to this form.)
The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering the courses as 400/600 level courses, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

(c) Frequency of offering: ___ each Fall ___ every two years
___ each Spring ___ every 3 years
X other (Explain: once a year)

11. Requirements for additional resources made necessary by this course:
(a) Staff The Department of Biology continues to struggle to offer enough spaces in upper division biology courses (see 10a and 10b above). This course will fill some of that need and will also serve students in the Environmental Studies Program.

(b) Budget The Department of Biology continues to struggle to offer enough spaces in 300-level and above biology courses. This course will fulfill some of that need and also serve students in the Marine Biology and Environmental Studies Graduate Programs.

(c) Library None anticipated.

(Note: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
REVIEW / APPROVALS

13. Signature of Department Chair: ___________________________ Date submitted: 2/7/96

14. Signature of School's Dean: ___________________________ Date: 2/9/96

15. Signature of Business Affairs Official: ___________________________ Date reviewed: 2/12/96

16. Signature of Curriculum Committee Chair: ___________________________ Date approved: ____________

17. Signature of Faculty Senate Secretary: ___________________________ Date approved by Senate: ____________

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MEMORANDUM

TO: Trisha Folds-Bennett, Curriculum Committee

FROM: Susan J. Morrison, Dept of Biology Coordinator, Minor in Environmental Studies
       Phone: 953-8078

RE: Proposed courses in Conservation Biology and Plant Ecology

DATE: October 4, 1995

When your committee evaluates the proposed courses in Conservation Biology (BIOL 406) and Plant Ecology (BIOL 444) from the Biology Department, could you please consider their inclusion as possible course selections for the Minor in Environmental Studies and include that in your recommendation to the Senate?

The courses are both extremely appropriate for the Minor as selections under the Science & Math Environmental Courses section. I don't expect students in the minor to significantly impact enrollments, since most who reach this level will be upper division Biology majors anyway.

cc. Lou Burnett, Chair, Biology Dept.
    Chip Biernbaum, Biology Curriculum Committee
    Arch McCallum, Biology Dept.
1. Department: Psychology

2. Course number and title: Psychology 313 Sensation and Perception Number of credits: 3

3. Total hrs/week: 3 Lecture: 3 Lab:

4. Catalog description (please limit to 50 words):
   An examination of the physiological and psychological processes involved in sensing and perceiving stimuli. Historical and contemporary research and theory in sensation and perception will be considered. Prerequisite: Psychology 103

5. Check if appropriate: ___ Humanities  ✔ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions): Prerequisite = Psychology 103 (Introduction to Psychology)

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
   The goal is for students to develop an understanding of the physiological processes, psychological processes, and theoretical explanations of sensation and perception. Members of the department view this course as an important and basic part of the discipline.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   The course offers study in a traditional area of psychological investigation that is still active and undergoing refinement. As such, it will contribute to student mastery of the discipline.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course fills a currently-existing gap in the middle of the major. Historically, research on sensation and perception has been a very important part of the discipline. Further, the course will serve as a prerequisite for the Visual Perception course (Pyc 382), for students who desire in-depth study of visual perception. It replaces the Sensory Processes course with a more traditional course and brings the prerequisites for the lab in Sensation and Perception into line with the prerequisites for the other laboratory courses in the department.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
   This course could be selected as a second social science course after Pyc 103 by any student at the College. It might be of special interest to students in biology, physics, or philosophy. It will provide a broad introduction to an important area of psychology for a student in any discipline.

   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   NA

9. Method of teaching:
   Lecture, 3 hours per week.
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.

Because this course takes the place of Psyc 380 (Sensory Processes), it is not anticipated that it will result in a significant shift in enrollment patterns. Having this course available should increase enrollment in Psyc 366 (Laboratory in Sensation and Perception) and should result in a slight (and desirable) lightening of demand for other laboratories.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

A new faculty member with this specialty has recently been hired by the department.

(c) Frequency of offering:

- each Fall
- each Spring
- every two years
- every 3 years
- other (Explain ________________________)

11. Requirements for additional resources made necessary by this course:

(a) Staff  NA
(b) Budget  NA
(c) Library  NA

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: ___________________ Date submitted: __/__/24

14. Signature of School’s Dean: ___________________ Date: __/22/96

15. Signature of Business Affairs Official: ___________________ Date: __/23/96

16. Signature of Curriculum Committee Chair: ___________________ Date: __/30/96

17. Signature of Faculty Senate Secretary: ___________________ Date: __/__/__

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

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Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: PsyC 366 Laboratory in Sensation and Perception

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We propose changing the prerequisites/corequisites for this course in the following way:
   
   **Current prerequisites:***
   Prerequisites: PsyC 103 (Intro PsyC), 211 (PsyC Statistics), 220 (Research Methods), 214 (Physiological PsyC)
   Corequisites or prerequisites: PsyC 380 (Sensory Processes) or 382 (Visual Perception)

   **Proposed prerequisites:***
   Prerequisites: PsyC 103 (Intro PsyC), 211 (PsyC Statistics), 220 (Research Methods)
   Corequisite or prerequisite: PsyC 313 (Sensation and Perception)

5. Justification for Change(s):
   *If the proposed new course in Sensation and Perception (PsyC 315) is approved, it will be a suitable corequisite or prerequisite for the Laboratory in Sensation and Perception. The proposed change brings this laboratory into line with the other laboratory courses in the department. All other labs require only PsyC 103, 211, 220 and the matched content course as a corequisite or prerequisite. Those likely to teach this laboratory feel that the proposed co/prerequisites will provide sufficient preparation for students.*

6. Date Approved by the Department: Nov. 7, 1995

7. Signature of Department Chair:

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: Psyc 372, Behavior Control

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We desire to change the name of this course from "Behavior Control" to "Applied Behavior Analysis."

5. Justification for Change(s):
   The name "Applied Behavior Analysis" more closely reflects the content of the course. Behavioral analysis is an integral feature of the course in that students are taught to assess and analyze the variables controlling behavior. In contrast, the existing course name does not convey the breadth of topics addressed.

6. Date Approved by the Department: Nov. 7, 1995
   Date Submitted: 1/23/95

7. Signature of Department Chair: ________________________________

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Delete a Course

1. Department: Psychology

2. Course Number and Title: Psyc 380, Sensory Processes

3. Course will be deleted effective: Spring, 1997

4. Reason for deleting course:
   The basic subject matter of sensory processes will be incorporated in the proposed Sensation and Perception course. If the proposed course is approved there will no longer be a need for a separate course in sensory processes.

5. Date approved by the Department: Nov. 7, 1995 Date submitted: 11/18/95

6. Signature of Department Chair: 

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: Psyc 382, Visual Perception

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We desire to change the prerequisites for this course from Psyc 103 and Psyc 214 (Physiological Psychology) to Psyc 103 and Psyc 315 (Sensation and Perception).

5. Justification for Change(s):
   The extremely large amount of research that has been done on the visual system justifies continuing to offer this course. Department members who are likely to teach this course agree that the new course in Sensation and Perception and the existing course in Visual Perception can be taught with minimal overlap of content. Further, those likely to teach this course agree that Psychology 103 and Sensation and Perception are realistic and sufficient prerequisites.

6. Date Approved by the Department: Nov. 7, 1995

7. Signature of Department Chair: ____________________________

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: Psyc 399, Tutorial

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We wish to remove the proviso that this course is "repeatable up to 12" hours of credit. Instead, we propose to keep it in the curriculum as a non-repeatable, 3-hour course. Further, we wish to add the following sentence to the course description: Open only to psychology majors enrolled in the Honors Program and having a psychology grade point average of at least 3.0. We also wish to clarify the prerequisites by adding the phrase or senior so that the prerequisites are "Junior or senior standing, plus permission of the tutor and the department chair."

5. Justification for Change(s):
   The department believes that the changes clarify the situations in which it is appropriate to enroll in a tutorial. The course must be kept in the curriculum because it is required of students who are in the Honors Program. Because only one 3-hour tutorial is required of Honors Program students, the repeatability feature is unnecessary. Students who are not in the Honors Program will continue to be served by the Department's Independent Study course(s).

6. Date Approved by the Department: Nov. 7, 1995

7. Signature of Department Chair:

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: Psyc 400, 401, 402, 40L, Independent Study

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We desire to change the description of this course to the following:
   Individually supervised reading and/or research on a topic or project agreed
   upon by student and supervisor.
   Prerequisite: Open to junior and senior psychology majors with the
   permission of a faculty member as supervisor and of the department chair.
   Formal written application stating the nature of the project and presenting
   evidence of sufficient background knowledge for the enterprise must be
   submitted prior to registration. Open only to students having a GPA of at
   least 3.0 in psychology courses. (No more than six semester hours in
   independent study may be applied toward the major.)

5. Justification for Change(s):
   As described in the current catalog, a student may enroll in up to 12 hours of
   independent study. Department members agree, however, that no more than 6 hours should
   count toward the major. Such a change will prevent students from overfilling their
   psychology transcripts with independent study. The word "faculty" replaces "staff," which
   we think is less accurate. Other wording changes simply clarify existing practices (such as
   requiring the Chair's permission to enroll) or seek to improve the course description
   grammatically.

6. Date Approved by the Department: Jan. 9, 1996  Date Submitted: Oct.

7. Signature of Department Chair: _____________________

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Psychology

2. Course Number and Title: Psyc 499, Bachelor's Essay

3. Course changes will go into effect: Spring, 1997

4. Change(s) Desired:
   We propose adding the following sentence to the catalog course description of this course: Open to psychology majors with an overall GPA of at least 3.4.

5. Justification for Change(s):
   The Bachelor's Essay must be kept in the curriculum because it is a requirement both for graduation from the Honors Program and for graduation with departmental honors. The department thinks that it should be undertaken only by very able students and thus suggests that there be a GPA requirement for enrollment. We propose that the requirement be an overall GPA of 3.4, which is required for students to graduate from the Honors Program. We propose that the course be restricted to psychology majors as the Bachelor's Essay is offered through other departments and through the Honors Program.

6. Date Approved by the Department: Nov. 7, 1995

7. Signature of Department Chair: ________________________

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
MEMORANDUM

March 21, 1996

To: The Faculty.

From: Bishop Hunt,
Faculty Secretary

About: Meeting

The eighth and final regularly-scheduled meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, April 2 in Maybank 100.

Agenda

Speaker’s Report

Committee on Nominations and Elections: elections of 1996-97 senate committees and the Ad Hoc Committee on General Education; nominations for the 1996-97 Committee on Nominations and Elections

Academic Standards Committee: “grading and tracking of external pre-approved-program student records”

Curriculum Committee

Faculty Welfare Committee: bicycle traffic on campus

Constituents’ Concerns

Remaining Regularly-Scheduled Meetings for Spring, 1996

Faculty Senate: April 2 (Maybank 100)

Full Faculty: Monday, April 22 (Recital Hall, Simons Center for the Arts)
Speaker’s Report
April 2, 1996

1) The Department of Mathematics will host the April Sherry Hour at the Faculty House, 20 Glebe St., in honor of Professor Emeritus, James P. Anderson. Jim will be there, along with his portrait, which now resides in the dining room of the Faculty House. Please join us there at 4:30 p.m., Thursday, April 4.

2) You have the “New Program Policy” which is part of your packet for this meeting. Please look it over and forward any comments to me.

3) We will need to have another Senate meeting in order to conclude action on this year’s business. The plan is to recess today’s meeting at a convenient time and reconvene in two weeks, April 16, same time and place. I am anticipating additional items for the agenda of the April 16 meeting. You will receive an agenda and packet for the April 16 meeting one week ahead as is required by our by-laws.
February 16, 1996

To: Bob Mignone  
    Speaker  

Fr: David Cohen  
    Associate Provost  

Re: New Program Policy  

The Provost is considering the adoption of the attached policy for inclusion in the Academic Affairs Policy Manual. This policy gives faculty developing new curricular programs a sense of the internal and external calendar requirements that need to be met to assure appropriate approvals. This policy has already been reviewed and approved by the Deans and Directors in Academic Affairs.

As you know the Provost has some discretion about what policies are referred to the Senate for review. Our original intention was simply to put it into effect. After the discussion with the Deans however it was suggested that I send it along to the Senate. It certainly contains useful information about the process for initiating and approving new programs.

You may want to refer it to a committee. You may simply supply it as information to the senate. Let me know. Thanks.
New Program Proposals

0.0 CONTENTS
1.0 Purpose
2.0 Definitions
3.0 Internal Development, Review and Approval of the Program Concept Letter
4.0 Internal Development, Review and Approval of the Program Proposal
5.0 Calendar For Internal Review and Approval
6.0 Commission on Higher Education Approval Process

1.0 PURPOSE

The Commission on Higher Education (CHE) has approved a revision of the policies and procedures governing the submission of new academic program proposals (November 1994). The Board of Trustees and the general administration of the College of Charleston require internal review and approval of new academic programs. This policy outlines the format, the calendar and the approval requirements for new program proposals. Simultaneously with the issuance of new procedures, the CHE published Policy and Procedures Concerning New Programs Manual (November 1994). Copies of this manual are kept in the Provost’s Office.

The CHE approves new programs using the following procedures: submission of a Program Concept Letter, submission of a Full Program Proposal, review by the Advisor

2.0 DEFINITIONS

2.1 New Programs --- offerings which lead to the conferral of a degree or the establishment of any administrative unit such as an institute or research center engaged in research, public service or instruction.

2.2 Program Concept Letter --- replaces the Letters of Intent; the Program Concept Letter is submitted to the CHE at the beginning of the institutional planning process. The purpose of a Program Concept Letter is to inform the College community and the CHE of the possibility of developing a new academic program proposal and submitting it to internal, College review and approval as well as CHE review and approval.

2.3 New Program Proposal --- whether describing a degree program or an academic unit, the Program Proposal is submitted to the CHE once the internal College review and approval process (including Board of Trustees approval) has been completed.

2.4 Program Modifications --- The CHE expects to review program modifications such as the extension or transfer of a program to another site, the addition of new concentrations within a major, the elimination of majors or concentrations,
consolidation of majors and substantive modifications of majors or concentrations.

3.0 INTERNAL DEVELOPMENT, REVIEW AND APPROVAL OF THE PROGRAM CONCEPT LETTER

3.1 The Program Concept Letter should contain: justification of the proposed program; anticipated program demand and productivity; assessment of possible duplication with other programs; relationship to other College programs; relationship to other programs at other institutions; information about faculty credentials; costs broken down into new cost vs. redirected cost summaries; total cost summaries. The proposal should be in the form of a letter from the President of the College to the chief executive officer of the Commission on Higher Education.

3.2 Deans and department chairs should notify the Provost of their intention to develop Program Concept Letters well in advance of submitting the letters for internal review and approval. Once the Program Concept Letter has been written, the department chair and/or dean of the school where the program resides submits the Letter to the Provost for review and approval six weeks prior to date the Letter will be submitted to the CHE. The Program Concept Letter should include statements of support from the academic dean and the Graduate Dean (as appropriate). The Provost may reject Program Concept Letters. The Provost will submit the cover letter to the President of the College for final review and signature. Submission of a Program Concept Letter to the CHE in no way commits the College to the new program but simply signals the intention of the College to develop a new program. Full administrative and faculty review and approval must take place prior to the implementation of any new academic program (see below).

4.0 INTERNAL DEVELOPMENT, REVIEW AND APPROVAL OF THE PROGRAM PROPOSAL

4.1 It is the responsibility of the department chair or the Dean in the area where the new program will reside to develop a Program Proposal. The draft covers the following elements: cover page, classification, justification, enrollment projections, curriculum, faculty, physical plant, equipment, library resources, accreditation, estimated costs. The CHE requires a specific format for a Program Proposal which appears in its Manual (Appendix A).

4.2 Chairs and Deans developing proposals should review them with the Associate Provost (for undergraduate proposals) or the Director of Graduate Programs (for graduate proposals) prior to beginning the internal review and approval process (below). These officers have examples of proposals from other units in the school and from other institutions in South Carolina. They may send the proposals for informal review from the CHE staff. They will assure that the proposals are in the appropriate format with all the required elements.

4.3 Each department where a proposal resides should review and approve the proposal. The dean of the school where a proposal resides should review and approve the proposal.
4.4 Proposals for graduate programs should be reviewed by the Faculty Committee on Graduate and Continuing Education and approved by the Graduate Council. Proposals for undergraduate programs should be reviewed by the Faculty Curriculum Committee. The Faculty Senate will review and approve all proposals.

4.5 Once the faculty review process has been completed, the proposal will be reviewed and approved by the Provost, the President and the Board of Trustees. Each proposal should have a signature sheet for noting the appropriate approvals as identified in steps 4.3, 4.4 and 4.5.

5.0 Calendar for Internal Review and Approval

The CHE approval process requires a minimum of one year from the time of submission of a Program Concept Letter until approval of a new program by the Commission. The CHE has two deadlines, November 1 and May 1, each year for receipt of Program Concept Letters and Program Proposals.

5.1 Program Concept Letter

Draft Program Concept Letters must be submitted to the Provost six weeks prior to the deadlines for submission to the CHE.

5.2 Program Proposal

The table below contains a schedule for internal review for New Program Proposals. The schedule represents the minimum time required for review/approval. New program development requires ongoing consultation among all parties and therefore often takes a great deal of time.

<table>
<thead>
<tr>
<th>CHE Submission Deadline</th>
<th>May 1</th>
<th>November 1</th>
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</thead>
<tbody>
<tr>
<td>Departmental development</td>
<td>Summer, early Fall</td>
<td>Winter, early Spring</td>
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<tr>
<td>Academic deans review</td>
<td>early Fall</td>
<td>early Spring</td>
</tr>
<tr>
<td>Graduate Dean review</td>
<td>early Fall</td>
<td>early Spring</td>
</tr>
<tr>
<td>(graduate prgm. proposals only)</td>
<td>early Fall</td>
<td>early Spring</td>
</tr>
<tr>
<td>Draft proposal sent to CHE for staff review (optional but encouraged)</td>
<td>early Fall</td>
<td>early Spring</td>
</tr>
<tr>
<td>Curriculum Committee reviews (undergrad. prgm. proposals only)</td>
<td>Fall</td>
<td>Spring</td>
</tr>
</tbody>
</table>
### 6.0 Commission Approval Process

A Program Concept Letter in the hands of the Commission by November 1 will be reviewed by its Advisory Committee on Academic Programs the following January. A final Proposal based on this Program Concept Letter and in the hands of the Commission by May 1 will be reviewed by the Advisory Committee on Academic Programs the following July. It will be reviewed by the Committee on Academic Affairs in October and the full Commission in November (a minimum of one year after the initial Program Concept Letter was submitted).

A Program Concept Letter in the hands of the Commission by May 1 will be reviewed by its Advisory Committee on Academic Programs the following July. A final Proposal based on this Program Concept Letter and in the hands of the Commission by November 1 will be reviewed by the Advisory Committee on Academic Programs the following January. It will be reviewed by the Committee on Academic Affairs in April and the full Commission in May (a minimum of one year after the initial Program Concept Letter was submitted).

<table>
<thead>
<tr>
<th>Drafted:</th>
<th>Reviewed:</th>
<th>Approved:</th>
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</thead>
<tbody>
<tr>
<td>L. Hines, D. Cohen</td>
<td>Deans</td>
<td>Provost</td>
</tr>
<tr>
<td>11/29/95</td>
<td>12/11/95</td>
<td>2/15/96</td>
</tr>
</tbody>
</table>
Memorandum

To: All Faculty Senators
From: Committee on Nominations and Elections
Re: Ad Hoc Committee on General Education
Date: March 22, 1996

The Committee on Nominations and Elections recommends the election of the following slate of candidates to the Ad Hoc Committee on General Education:

Arts:
Diane Johnson  Art History
Al Lyndrup  Theater

Business & Economics
Roger Daniels  Accounting & Legal Studies
Paul Jursa  Economics

Education:
Andy Lewis  Physical Education
Monica Janus  Educ. Found. & Spec.

Humanities & Social Sciences:
Lynne Ford  Political Science
Todd Grantham  Philosophy

Sciences & Mathematics:
Henry Donato  Chemistry
Arch McCallum  Biology
Memorandum

To: All Faculty Senators
From: Committee on Nominations and Elections
Re: Senate Committees
Date: March 22, 1996

The Committee on Nominations and Elections recommends the election of the following slate of candidates to the Standing Senate Committees:

**ACADEMIC PLANNING**
7 faculty members, majority must be faculty senators

Cherry, Lynn  
Courson, Frances (S)  
Grantham, Todd  
Jones, Martin (S)  
Kaiser, Charles (S)  
McBroom, Deanna  
Morrison, Susan (S)  

English & Communications  
Educational Foundations & Specializations  
Philosophy

**BUDGET**
7 faculty members, majority must be faculty senators

Donato, Henry  
Friedman, Doug (S)  
Leclerc, Anthony  
Livingston, Tom  
Olejniczak, Bill (S)  
Sarvate, Dinesh (S)  
Wilder, Hugh (S)  

Chemistry  
Political Science  
Computer Science  
Economics  
History  
Mathematics  
Philosophy

**BY-LAWS**
3 faculty members, majority must be faculty senators

Doig, Marion (S)  
Hunt, Bishop (S)  
Parson, Jack  

Chemistry  
English & Communications  
Political Science
Proposal to the Faculty Senate
Re: Credit for coursework taken as part of an external pre-approved program.

The Faculty Committee on Academic Standards, Admissions and Financial Aid proposes the following policy, to be included in the Policy and Procedures Manual of Student Records:

All coursework taken as part of an external pre-approved program (specifically the International Student Exchange Program, the National Student Exchange Program and the Bilateral Exchange Program) be considered for credit and academic enrollment status the same as if it were completed at the College of Charleston.

The Senior Year Residency requirement is not altered in any way by this policy.

Rationale

Currently all students participating in the above-mentioned programs receive transfer credit for coursework taken at the host institution. In particular, such students do not receive credit for “D” work at the host institution. This practice violates federal regulations governing programs for which students are eligible for federal financial aid. The result is that our students cannot get federal financial aid for any of these programs and so some students are effectively excluded from these programs on financial grounds.

The proposed policy has the advantage of making these exchange programs available to more of our students and the disadvantage of requiring us to lower our standards by accepting credit for D’s awarded at other institutions. The Academic Standards Committee concluded that the advantage outweighed the disadvantage. For acceptance into any of these programs, a student must meet minimum GPA requirements (2.5 for NSE, 2.75 for ISEP, 3.0 for Bilateral Exchange) and must have two letters of recommendation from faculty. The College of Charleston requires that all courses that the student plans to take be pre-approved by the relevant department and the Dean of Undergraduate Studies. All three of these agreements give us the option of refusing to accept any course. If a student, while at an exchange institution, takes a course which has not been pre-approved, then that course falls outside the agreement, and may be considered for transfer credit only.

The proposed policy does not affect coursework taken elsewhere for transfer credit (we would still give credit only for grades of C or better) and it does not affect coursework taken under the cross-registration agreement (as we already accept all grades taken under this agreement as if they came from the College of Charleston).

For the reference of faculty senators, some supporting material is attached.
MEMORANDUM

TO: Bill Anderson, Registrar
FROM: Deborah D. Eulater, Acting Director
Student Intercultural Programs

RE: Compliance with Federal Regulations

DATE: January 22, 1996

I met with Donald Griggs concerning the treatment of credits and grades for students who participate in Study Away Programs such as National Student Exchange (NSE), International Student Exchange (ISEP), Independent Exchange and other Bilateral Programs. As a result of that meeting I am requesting that the College develop a policy concerning the treatment of credits and grades of students who study away. Since we encourage students to participate in these programs we should be in compliance with the regulations.

Federal regulations governing disbursement of Title IV financial aid funds require that the student’s home institution must give credit for the courses taken at the schools on the basis as it would for coursework taken at the home school; it cannot be treated differently in any way. This includes coursework in which the grade was usually low (generally a "D"), but would have been accepted had the student taken the same course and earned the same grade at his/her own institution.

Don has agreed to forward a copy of the 1995-96 Federal Student Aid Handbook from the National Association of Student Financial Aid Administrators (NASFAA) to provide additional support when you present a proposal to the Provost concerning this matter.

Thank you for your assistance. If additional information is needed please do not hesitate to call. Looking forward to a response as soon as possible.

cc: Sue Sommer-Kresse
Donald Griggs
David Singleton
TO: Bill Anderson, Registrar

FROM: Donald R. Griggs, Director

DATE: January 19, 1996

RE: "Study Away Programs"

As requested in our meeting yesterday with Deborah Euland, I am providing this memo of endorsement and recommendation to support your proposal to the Provost concerning the treatment of credits and grades for students who are participating in any "Study Away Program" such as the International Student Exchange, National Student Exchange, Study Abroad Programs, and individualized consortia programs which are entered into individually with students who wish to study elsewhere. The experiences students can take advantage of are enormous and the College has made a decision to encourage students to participate. The U. S. Department of Education also supports such activity and certainly the Office of Financial Assistance wants to serve these students as well.

The issue: Federal regulations state that if the institution has signed an agreement to participate in any of these programs or has entered into an individual student consortia agreement with the student and a host institution, then that means the College has determined that the courses are acceptable and equal to courses taken on our campus. With that determination made, then the credits and grades for these courses must be treated exactly the same as they would be had the student sat in classes here at the College.

Action Needed: In order for me to approve federal financial aid for any of these programs, I must have on file in my office written confirmation from the academic side of the house that the College does in fact comply with these regulations. This certification can simply be in the form of a memo from you to me and that will satisfy the auditors and federal program reviewers. It is important to note that during our annual audits the College must be able to show that this procedure is in fact being practiced.
Attached please find a copy of the guidance provided in the *1995-96 Federal Student Aid Handbook* and a summary provided earlier this fall from the National Association of Student Financial Aid Administrators (NASFAA). I hope this information is helpful in differentiating between the treatment of transfer credit and credits under one of the special programs.

For the legal perspective, I have discussed this matter with Andy Abrams and he concurs that probably the wisest thing to do is to comply with the regulation because certainly the College does not want to deny aid to students who wish to participate in these programs.

As soon as we receive your certification that the College will comply with these regulations, my office will begin certifying students for the up-coming summer. Please note that we are already getting inquiries and a decision is needed soon. Thank you for your help in this matter.

Enclosures: 2

CC: Sue Sommer-Kresse  
Deborah Euland  
David Singleton
Here is the NASFAA Technical Regulatory Report for December 6

Written Agreements and Visiting Students

Some institutions have recently experienced federal program review questions regarding the treatment of courses taken under written agreements. Under a written agreement as described in section 600.9 of the institutional eligibility regulations, an institution can allow its students to take part of their programs at another institution. Written agreements can be between an eligible institution and other eligible institutions (also known as consortium agreements), or between an eligible institution and an institution that is not eligible to participate in the Title IV programs (also known as contractual agreements).

With a written agreement in place, the home institution can process federal student aid for the portion of the student’s program taken at the other institution. If the other institution is also an eligible institution, the agreement can stipulate that the other institution will process aid and maintain the appropriate records.

A written agreement can be a blanket document reflective of an ongoing formal agreement for any number of students in a particular program, or for students wishing to take advantage of a standing formal agreement which expands their choice of coursework. A written agreement can also be designed for an individual student under a one-time arrangement between two institutions.

The program review questions have centered on the treatment by the home institution (i.e., the institution from which the student will earn the degree or certificate) of courses taken at the institution with which it has the agreement. Section 600.9(b)(2) requires the home institution to give credit to students enrolled in the portion of their program provided by the other institution "on the same basis as if it provided that portion of the program itself." Apparently some institutions have been cited for two kinds of violations of this regulation.

In one type of violation, the home institution entered into written agreements to allow students to attend other institutions near their homes for the summer; these students were considered "visiting students" at the other institutions, and the home institution accepted credits under the same rules it applied to transfer students. That is, it would not give credit for a grade of 'D' received at the other institution, even though it gave credit for 'D' grades in its own courses. This practice is clearly contrary to the regulation. Regardless of the situation prompting the written agreement, the institution must comply with the requirement that courses be accepted on the same basis as if they were offered by the home institution. The underlying assumption is that the home institution has made a determination that the standards at the other institution are acceptable when it enters into the written agreement.

As a result, if a written agreement has been executed to allow the student to receive federal financial aid, the institution should not treat differently the student taking a summer course.
acceptable towards his/her degree at another institution for convenience, from the student taking part of a program formally arranged to be offered by another institution. Note however, that this requirement does NOT affect an institution's ability to assess coursework simply transferred from another institution with which no written agreement had been arranged; the institution is free to apply whatever academic standards it deems appropriate to transfer credits when no written agreement is involved.

The other type of violation involved the use of grades. In this instance, the home institution gave the student credit for the coursework taken under the written agreement, but did not use any of the grades to calculate the student's grade point average. The Department of Education does not consider this treatment to be consistent with the regulatory requirement to give credit on the same basis. Again, the assumption is that the home institution accepts the credit as if it had offered the course itself -- including the use of grades.

Other information about written agreements may be found in the 1993-94 Federal Student Financial Aid Handbook, pages 89 - 91 in chapter 3 and pages 41 - 42 in the new section of chapter 4 that was recently distributed to institutions.

By Joan Berkes, NASFAA
MEMORANDUM

To: William Anderson, Registrar
From: Edward C. McGuire, Dean
Date: February 1, 1996
Re: Policy Revision

I have read your proposal of February 1, 1996 regarding the awarding of grades to students who "study away".

It is with enthusiasm that I support your recommendation that we award students the grade given by the host institution.

We at the School of the Arts are encouraging our students to seek an international educational experience, and more and more of our students are doing so. Further, those "host" institutions are institutions of higher education that are among the finest.

To punish students who "study away" and to refuse to recognize the quality of host institutions seems to be doubly wrong. Let's do it!

M/H
Memo

To: Bill Anderson, Registrar

From: Nan Morrison

Date: February 7, 1996

Thank you for sending me a copy of the proposed revision of the policy governing transfer credit for students engaged in "study away" programs. I enthusiastically support this new policy.

Study abroad should not be a privilege enjoyed only by affluent students. If we must change our policy regarding transfer credit to enable our students to receive financial aid for study abroad, then we must do it.
MEMORANDUM

To: Bill Anderson  
From: Gordon E. Jones  
Date: February 5, 1996  
Subject: Proposed Revision of Policy for “Study Away” Programs

Unless there are considerations that have not occurred to me, I concur with the proposal that College of Charleston comply with Federal regulations. Specifically, we should regard credit obtained by students under programs approved by the College as equivalent to credit taken on campus. To do otherwise, it seems to me would imply that we are not fully convinced of the value of study experiences abroad.

One of the strong recommendations of our SACS Self-Study is that the College do more to encourage students to broaden their perspectives by participating in student exchanges, especially those that take them into other cultures and countries. Clearly we must examine carefully each program that we approve for student credit, but once we have done so, there is little reason not to accept this credit as equivalent to what we offer on the campus.

/blh
MEMORANDUM

TO:        Bill Anderson, Registrar

FROM:      Hugh Wilder, Acting Dean, Humanities and Social Sciences

RE:       Proposed Policy Revision

February 5, 1996

Thank you for your proposal for changing College policy on grading and tracking “study away” program student records. I strongly endorse the proposed policy. It will allow our students to participate fully in study away programs, while having financial aid available to them.

The proposed policy states that “all course work taken as part of an approved ‘study away’ program” will be treated for grading and residency status as if it had been completed at the College. My only question concerns the term “approved”: By whom? According to what standards? Additional clarity on this point might help. But overall, adoption of the proposed policy will be an important improvement for students.
MEMORANDUM

To: David Cohen
From: Edward C. McGuire
Date: February 6, 1996
Re: Overseas Study

I want to reiterate that the School of the Arts’ faculty and administration believe that the process our students must undergo in order to register for an overseas course is at best cumbersome and at worst bureaucratic.

By strongly encouraging students to study overseas, we are working diligently to adhere to President Sanders’ vision of an institution focused on international issues. It is our judgement that the paper-work to register for an overseas experience both confines and discourages the faculty and the students.

M/H

cc: William Anderson
November 2, 1995

Andy Laryea
Coordinator for International and Exchange Programs
College of Charleston
66 George Street
Charleston, SC 29424

RE: Compliance with Federal Financial Aid Regulations
Regarding Consortium Agreements

Dear Andy:

From conversations and correspondence with you, I understand that your campus is reviewing ways it can come into compliance with regulations governing disbursement of federally funded financial aid to students exchanging under a consortium agreement. As you know, of particular issue is the regulation which requires that if a campus provides federally funded financial aid to students exchanging under a consortium agreement (like NSE) then it is obligated to treat the work from the student's host institution in the same manner as though earned at the home campus.

At its recent meeting, the NSE Council reviewed and approved a *Position Paper* which might be of assistance to you as you continue address this issue at your institution. The paper provides background information and articulates possible campus reactions to the federal policy and NSE response to these reactions.

You might like to know that out of NSE's 133 members, 116 colleges and universities are in full compliance with the federal financial aid regulations governing acceptance of coursework taken on exchange. All but two of the remaining institutions are working to address this issue. If you have recently adopted a policy which allows you to comply with these regulations, I would appreciate receiving a copy of the policy and/or a memo from you indicating your campus is in compliance.

Thank you in advance for your attention to this matter. Let me know how I can be of assistance.

Cordially,

[Signature]

Bette Worley
Executive Director

Quality Service to Universities and Students Since 1968
Ms. Betty Worley  
Director  
National Student Exchange  
4656 West Jefferson, Suite 140  
Fort Wayne, Indiana 46804  

Dear Ms. Worley:

Thank you for your inquiries requesting clarification of a National Association of Student Financial Aid Administrators technical regulatory report on written agreements and visiting students. Because your inquiry has impact on the overall Title IV programs I am responding to your concerns. The report discusses several types of program review findings at institutions who establish written agreements between an eligible institution and another institution or organization under §600.9 of the Institutional Eligibility regulations.

The Institutional Eligibility regulations under 34 CFR 600 apply to all institutions participating in the Title IV programs authorized under the Higher Education Act of 1965, as amended. If an eligible institution establishes a written agreement with another institution, that institution is also subject to the requirements in §600.9(b)(2) and must give "... credit to students enrolled in the portion of the educational program that is provided by the other institution or organization on the same basis as if it provided that portion of the program itself." The eligible institution, by entering into an agreement, is recognizing the educational coursework earned at the other institution or organization to be the equivalent of its own coursework. Therefore, the eligible institution from which the student will receive his or her degree must accept the credits from the other institution or organization as if the student had earned them at that institution (including coursework in which the grade point average was unusually low but would be counted if the student took the coursework at the institution). Upon further review, we have determined that the institution does not need to accept the grades earned at the other institution or organization and average them into the student’s grade point average at that institution. We will inform our regional offices of this policy decision.

If an eligible institution establishes an agreement with another eligible institution and Federal Pell Grant funds are involved, then, in addition to adhering to the regulatory requirements in §600.9, the institution must also establish an agreement that conforms to the requirements in §690.9 of the Federal Pell Grant Program regulations. Section 690.9 requires that an agreement...
between two eligible institutions indicate: (1) which institution will pay the student his or her Federal Pell Grant and determine the student’s enrollment status; and (2) that the institution paying the student will maintain all records related to the student’s financial aid.

I hope this information is helpful to you.

Sincerely,

Robert W. Evans
Director, Division of Policy Development and Member, Direct Student Loan Task Force

cc: U.S. Department of Education Regional Offices
    Dr. A. Dallas Martin, President
    National Association of Student Financial Aid Administrators
To: Faculty Senators

From: Trisha Folds-Bennett, Chair, Curriculum Committee

Date: March 21, 1996

Enclosed are several proposals that I, on behalf of the Curriculum Committee, will present for your consideration at the April 2 Senate meeting.

You should have the following proposals:

✓ Art History:
   Proposal for minor in Historic Preservation and Community Planning
   Course change (ARTH 410)

✓ Physics:
   Addition to the electives for the minor and concentration in Astronomy.

✓ Accounting and Legal Studies:
   Course changes ACCT 409
   ACCT 407

✓ Management and Marketing:
   New course proposals
   BADM 346
   BADM 347
   BADM 351

✓ School of Mathematics and Sciences:
   modification of Undergraduate Bulletin prescriptions for minors

✓ Biology:
   New course proposals
   BIOL 406
   BIOL 421
   BIOL 444
   BIOL 503

   Course changes
   BIOL 440
   BIOL 341

If you have any questions prior to the meeting, please call (3-5517) or e-mail (Bennett@cofc.edu) me.
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Art History
2. Course Number and Title: ARTH 410 Internship
3. Course changes will go into effect: Fall 1996
4. Change(s) Desired:
   - Remove the designation of eligible students as "visual arts students."
   - Change description to read: "Internship: Specific organization, "Art," and includes course of preparation."
   - Change prerequisite rules: "This course must be applied and can be accepted by the internship director in the department."

5. Justification for Change(s):
   The new description is more accurate in terms of opportunities available, student areas of interest, and the application process used.

6. Date Approved by the Department: 11/26/96  Date Submitted: 1/21/76
7. Signature of Department Chair: [Signature]

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

New Course Description:

"ARTH 410: Internships are intended to provide the opportunity for the student to apply knowledge and skills learned during a normal course of study to actual situations encountered in work with area arts or preservation organizations. Junior and Senior Art History majors or Historic Preservation minors with GPAs of 3.0 or better in major are eligible for application. Permission of faculty internship director is required."
CURRICULUM FOR A MINOR IN HISTORIC PRESERVATION AND COMMUNITY PLANNING

THE COLLEGE OF CHARLESTON
TO BEGIN SPRING TERM, 1996
(approved by the Curriculum Committee February 1996)

The minor in Historic Preservation and Community Planning is a 21-hour curriculum offered by the Program in Historic Preservation and Community Planning at the College of Charleston. It consists of fifteen hours of required core courses, and an additional six hours selected from the list of electives. In addition to the courses listed below, interested students are encouraged to enroll in cognate courses offered by other departments within the College.

CORE COURSES (for all students selecting the minor)

Urban Planning
Introduction to Historic Preservation
The City as a Work of Art (A History of City Making)
American Urban History
Internship/practicum

ELECTIVES (students select six hours from the following courses)

History of American Architecture
History of South Carolina
Charleston Architecture
Society and Culture of Early Charleston
Urban Design Studio
Urban Politics
Urban Geography
Preservation Planning (TBA)
Special Topics in Art History, History, Political Science, Urban Studies (these could include, for example, the Addlestone seminars in the Art History dept, or Victorian Charleston, offered by the History dept, or a course like Land Use Law offered by the Urban Studies Program)
SUGGESTED COGNATE COURSES

Introduction to Architecture (Art History 245)
History of 18th and 19th-Century Architecture (Art History 394)
History of 20th-Century Architecture (Art History 395)
Drawing I (Studio Art 119)
Principles of Macroeconomics (Economics 201)
Urban Economics (Economics 307)
Archaeology (Anthropology 202)
Urban Anthropology (Anthropology 351)
African American History to 1865 (History 216)
History of the South to 1865 (History 224)
History of Science and Technology (History 256)
Colonial America, 1585-1763 (History 301)
Stuart England, 1603-1714 (History 355)
Georgian England (History 356)
Victorian Britain (History 357)
Introduction to Urban Studies (Urban Studies 201)
Proposal for an Interdisciplinary Minor in Historic Preservation and Community Planning

1. Goals, Objectives and Outcomes of the minor Program

The goal of the proposed minor in Historic Preservation and Community Planning is to introduce the student to the history, theory and practice of historic preservation, and the present necessity to link preservation with parallel issues in community planning. Because of changes in the world of historic preservation it is no longer sufficient to consider the preservation of particular buildings or landscapes without a concommitant vision of what might best be called the context of the object.

Since this is to be an undergraduate minor, its own context should be seen as being firmly placed within the Liberal Arts tradition of the College of Charleston. This is not intended to be 'training' for the technical field of historic preservation, but rather as an introduction to the broader issues which are presently being grappled with by preservationists.

The ideal result of this minor program will be to awaken in the student an appreciation for the complexity of the field of historic preservation. Through a combination of general and survey courses and specific practical applications the student will begin to understand the multitude of forces acting upon cities, towns and rural areas that either encourage or hinder the preservation of historic sites at the end of the 20th century.

2. Development of Goals through the Curriculum

Given the necessarily restricted curriculum of a minor program, it is not expected that anything like a complete exposure to the field can be achieved. Nevertheless, it is possible to make a good beginning toward this goal at both the macro and the micro levels.
80% of the core courses can be characterized as broad in scope, with some of them being frankly introductions to their subject (Urban Planning, Introduction to Historic Preservation, The City as a Work of Art). These constitute the 'macro' approach to the field of preservation. At the other end is the internship/practicum, whereby the student has the opportunity to understand how the broader issues are applied to a particular 'hands-on' situation.

Something over two thirds of the hours for the minor are within the core, so students choosing the program will share an extensive common grounding. There is, however, still room for individual preference. The elective hours will allow the students to gain some background in ancillary areas that are of particular interest to them. Therefore a student might choose courses in public policy, or visual form, or historical background, depending on his own predilection.

3. Clarifying Goals for the Students

The purpose of the minor will be made clear to the student in three ways. The first is through the catalog description and other publicity material (flyers, etc.). The second is through advising and personal contact. Obviously faculty involved in advising the students will be able to explain the purposes of the minor in an individual and one-on-one fashion. Additionally, since Historic Preservation is a relatively new field to academics, and a complicated one, it is expected that many students who may be interested in what the minor is about will seek out faculty for further explanation. Finally, the faculty teaching the core courses will be aware that some of their students are actual or potential minors in Historic Preservation, and while the course might not necessarily be pitched to that particular group of students -- this constituency will certainly be considered. Therefore, although the introductory course in Historic Preservation is self-evidently concerned with the goals of the minor, another core course, The City as a Work of Art, for example, will include an examination of the historical urban context for either destroying or adaptively re-using parts of a city.
4. Goals and Course Linkage

Insofar as the general and specific goals of the minor program in Historic Preservation have been reflected in the choice of the core courses (as well as the electives and cognates), the answer is generally in the affirmative. More particularly, three of the core courses (Urban Planning, Introduction to Historic Preservation and The City as a Work of Art) have been constituted with this minor in mind, and reflect, to a greater or lesser extent, the goals and intended outcomes of the program.

5. The Minor Program in Historic Preservation in the Context of a Liberal Education

As has already been mentioned in section 1, it is the intention of all the faculty participating in this proposed minor that it be located integrally within the matrix of a Liberal Arts education. It is felt that the minor steers a safe course between the Scylla of an overly technical and narrow training, and the Charybdis of a body of courses so broad and multi-faceted that it is only with the greatest generosity that they can be seen as being related at all.

The Academy is the best place to deal with the underlying theories and implications of a discipline; things that are often poorly considered in the chaos and swirl of the 'real world.' Conversely it is possible for an academic program to pay too little heed to how things actually work. By giving a dominant place to the former issues without disregarding the practice of Historic Preservation and Community Planning entirely, it seems that this minor curriculum does what should be done in the context of undergraduate Liberal Arts education.
Dear Prof. Bennett,

The Physics and Astronomy Department hereby requests a small change to the recently approved minor and concentration in Astronomy. The History Department regularly offers a course entitled ‘The Cosmos In History To 1800’ (History 251); a syllabus for the course is attached. Since our Astronomy courses preferentially treat modern Astronomy whereas HIST251 preferentially treats archaeoastronomy, we felt that this course would make a valuable addition to the minor/concentration in Astronomy, especially since it is taught from a Humanities perspective which will give students a broader prospective of Astronomy.

Hence, we request that this course be included as an additional elective the students can consider for a minor or concentration in Astronomy. The History department strongly supports this change, and a letter of support is attached.

We propose the following Catalog description (course titles are for review of this proposal only and will not be placed in the Catalog description): "A minor in astronomy shall consist of at least 6 courses, which must include 2 core courses and 4 elective courses. The core courses must consist of either Physics 129 and Physics 130 (with associated labs), Honors Astronomy, or Physics 310 and Physics 311. The elective courses can be chosen from History 251 (The Cosmos through History), Physics 101 (Introductory Physics), 102 (Introductory Physics), 201 (General Physics), 202 (General Physics), 205 (Intelligent Life in the Universe), 298 (Special Topics), 301 (Classical Mechanics), 306 (Physical Optics), 390 (Research), 399 (Tutorial), 412 (Special Topics), 413 (Astrophysics), 420 (Senior Research), and 499 (Bachelor’s Essay) in addition to Physics 310 and 311 if they were not taken as core courses. A maximum of three courses may be at the 100 level. Physics 298, 390, 399, 412, 420 and 499 must involve astronomy. A minimum of 3 credit-hours of Physics 390 or 412 must be taken for these courses to count towards the minor. Students may not receive credit for both Physics 101 and 201, for both Physics 102 and 202, or for both Physics 129/130 and Honors Astronomy. Physics 101 and 102 must include associated laboratories. The courses must be approved by the student's major advisor and the astronomy minor program director."

All other sections of our original proposal approved by the Senate on Jan. 16, 1996 remain the same. Note that the addition of History 251 as an elective only strengthens our arguments regarding depth and breadth of the minor/concentration and adds to the course offerings students may select from.
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Accounting and Legal Studies
2. Course Number and Title: Accounting 409--Auditing
3. Course changes will go into effect: Fall Semester, 1996
4. Change(s) Desired: Accounting 407--Accounting Information Systems--will become a prerequisite for ACCT 409--Auditing
5. Justification for Change(s): A working knowledge of accounting information systems will better prepare the accounting major for an understanding of the auditing process
6. Date Approved by the Department: December 6, 1995
   Date Submitted: January 30, 1996
7. Signature of Department Chair:

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

c:\newcours\courschg.frm
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Accounting and Legal Studies

2. Course Number and Title: ACCT 407—Accounting Information Systems

3. Course changes will go into effect: Fall Semester, 1996

4. Change(s) Desired: Change ACCT 316—Intermediate Accounting I—from a corequisite to a prerequisite for ACCT 407—Accounting Information Systems

5. Justification for Change(s): Reason: ACCT 316 provides an indepth working knowledge of the accounting cycle, an understanding of which is critical for ACCT 407—Accounting Information Systems

6. Date Approved by the Department: December 6, 1995
   Date Submitted: January 30, 1996

7. Signature of Department Chair:

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

c:\newcours\courschg.frm
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: Accounting and Legal Studies

2. Course Number and Title: BADM 300--Management Information Systems

3. Course changes will go into effect: Fall of 1996

4. Change(s) Desired: BADM 300--Management Information Systems--will be removed from the accounting major.

5. Justification for Change(s): BADM 300--Management Information Systems--was in the accounting major before ACCT 407--Accounting Information Systems--was created. The accounting major does not need both systems courses and is much better served with the ACCT 407.

6. Date Approved by the Department: December 6, 1995
   Date Submitted: January 30, 1996

7. Signature of Department Chair:

   IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
   (form last revised August, 1988 and replaces all others)

c:\newcours\courschg.frm
The Faculty Committee on Curriculum and Academic Planning has adopted the Association of American Colleges and Universities' framework for program review. (A copy of the booklet Program Review and Educational Quality in the Major has been provided with this packet). When examining the rationale and justification presented for courses within the major and outside the major (electives/general degree requirements), the Committee's deliberations will be focused by the questions listed 6, 7, 8 and 9. A number of departments at the College have participated in a self-examination known as "reforming the major." Names of department chairs willing to serve as resources may be obtained from the deans of the School of Humanities and Social Sciences and Sciences and Mathematics.

1. Department: Management and Marketing
2. Course number and title: BADM 346 Business and Technology
   Number of Credits: 3
   Total hrs/week: 3
   Lecture: 3
   Lab: 0
3. Course will be offered first: This course has been taught as a BADM 360. Selected Topics since Fall 1993. One section per semester.
4. Catalog description (please limit to 50 words): This course introduces students to the importance of entrepreneurship and the impact technology has on productivity and ultimate success of the business. Technological issues will be examined as will the relationship between the firm's strategic business plan and its technological plan for product and production process.
5. Prerequisites (or other restrictions): Junior Standing
6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course? To introduce students to the methods of successfully commercializing new technology.
   (b) How does the course support the mission statement of the department and the organizing principles of the major? This course expands students' understanding and appreciation of the intricacies of entrepreneurship.
7. For courses in the major, how does the course enhance the beginning, middle or end of the major? Allows students to understand how theoretical knowledge gained from other business courses applies to the small and new business environment.
8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? Non-Business majors who are creative and inventive will learn how to profit from their technological innovations.
   (b) Are other Departments affected by this course. (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No
9. Method of teaching: Lecture, class discussion and case analysis

10. (a) Address potential enrollment pattern shifts in the department or college-wide as it relates to the offering of this course. No enrollment shifts are expected

(b) Address potential shifts in staffing of the department as it relates to the offering of this course. No changes expected since Mr. Witunski, an Executive in Residence, will continue to teach this course

11. Requirements for additional resources made necessary by this course:
(a) Staff None
(b) Budget None
(c) Library None

(Note: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: ____________________________ Date submitted: 1/17/96

14. Signature of School's Dean: ____________________________ Date: 1/17/96

15. Signature of Budget Director, Business Affairs Official: 

16. Signature of Curriculum Committee Chair: ____________________________ Date approved by Senate:

17. Signature of Faculty Senate Secretary: 

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(If an additional diskette for word processing of this form is desired, please send a blank diskette to Chivon Jenkins, Undergraduate Studies. This form last revised April 24, 1994 and replaces all others.)
The Faculty Committee on Curriculum and Academic Planning has adopted the Association of American Colleges and Universities' framework for program review. (A copy of the booklet Program Review and Educational Quality in the Major has been provided with this packet) When examining the rationale and justification presented for courses within the major and outside the major (electives/general degree requirements), the Committee's deliberations will be focused by the questions listed 6, 7, 8 and 9. A number of departments at the College have participated in a self-examination known as "reforming the major." Names of department chairs willing to serve as resources may be obtained from the deans of the School of Humanities and Social Sciences and Sciences and Mathematics.

| 1. Department: | Management and Marketing |
| 2. Course number and title: | BADM 347 Small Business Finance | Number of Credits: | 3 |
| Total hrs/week: | 3 | Lecture: | 3 | Lab: | 0 |
| 3. Course will be offered first: | Course has been taught as BADM 360, Selected Topics, since Fall of 94. |
| 4. Catalog description (please limit to 50 words): | This course is designed to familiarize the student with sources and types of financing available to entrepreneurs with emphasis on investor and lender analysis of project financial requirements. |
| 5. Prerequisites (or other restrictions): | Accounting 203 and 204, Economics 201 and 202; junior standing |
| 6. Rationale/justification for course (consider the following issues): |
| (a) What are the goals and objectives of the course? Students will be introduced to methods of identifying sources of capital, investor analysis of projects, and financial negotiation. |
| (b) How does the course support the mission statement of the department and the organizing principles of the major? The course provides valuable information to potential entrepreneurs, bankers, investors and those interested in finance. |
| 7. For courses in the major, how does the course enhance the beginning, middle or end of the major? Allows students to understand how theoretical knowledge gained from other business courses applies to the small and new business environment. |
| 8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? Non-business majors can learn the intricacies of raising capital for new ventures. |
| (b) Are other Departments affected by this course. (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No |
9. Method of teaching: Lecture, class discussion, and case analysis.

10. (a) Address potential enrollment pattern shifts in the department or college-wide as it relates to the offering of this course. No enrollment shifts are expected.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course. No changes are expected since Prof. Charles Cathcart, an Executive-In-Residence, will continue to teach this course.

11. Requirements for additional resources made necessary by this course:
   (a) Staff None
   (b) Budget None
   (c) Library None

(Note: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: [Signature]
    Date submitted: 4/17/96

14. Signature of School’s Dean: [Signature]
    Date: 1/17/96

15. Signature of Budget Director,
    Business Affairs Official: [Signature]
    Date reviewed:

16. Signature of Curriculum
    Committee Chair: [Signature]
    Date approved: 3/21/96

17. Signature of Faculty
    Senate Secretary:
    Date approved by Senate:

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(If an additional diskette for word processing of this form is desired, please send a blank diskette to Chivon Jenkins, Undergraduate Studies. This form last revised April 24, 1994 and replaces all others.)
The Faculty Committee on Curriculum and Academic Planning has adopted the Association of American Colleges and Universities' framework for program review. (A copy of the booklet Program Review and Educational Quality in the Major has been provided with this packet) When examining the rationale and justification presented for courses within the major and outside the major (electives/general degree requirements), the Committee's deliberations will be focused by the questions listed 6, 7, 8 and 9. A number of departments at the College have participated in a self-examination known as "reforming the major." Names of department chairs willing to serve as resources may be obtained from the deans of the School of Humanities and Social Sciences and Sciences and Mathematics.

1. Department: Management & Marketing

2. Course number and title: BADM 351 Hotel Management
   Number of Credits: 3
   Total hrs/week: 3
   Lecture: 3
   Lab: 0

3. Course will be offered first: During the Spring 1995-1996 semester, the course will be taught as a BADM Special Topics course.

4. Catalog description (please limit to 50 words): Examination of hotel and motel management and operational issues with an emphasis on general hospitality management (structure, staffing, reservations), corporate structures and operational concepts, feasibility determination, guest service, sales and public relations, forecasting, hotel accounting and controls, labor management, guest relation and industry future.

5. Prerequisites (or other restrictions): Junior Standing & BADM 210 (260) (Introduction to the Hospitality and Tourism industry) or permission of the instructor. Relevant industry experience or equivalent college coursework may substitute for BADM 210.

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course? To develop an understanding of the organizational structure within which a hotel/motel operates; to examine trends and developments in new areas of the industry, which approaching hotel and motel operations from a business and financial point of view.
   (b) How does the course support the mission statement of the department and the organizing principles of the major? Strong competitive forces exist in the lodging industry today. The hotel industry is a part of the much larger hospitality industry that comprises those businesses that provide services to the business and personal/pleasure traveler as well as those engaged in leisure activities.

7. For courses in the major, how does the course enhance the beginning, middle or end of the major? This course will be a required course in the Hospitality and Tourism concentration within the Department of Management and Marketing. This course will also serve as a Business Administration elective.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? The course provides linkages for non business majors in that it includes various aspects of hotel development related to national/international history of the industry, cultural events, cross-cultural implications of hotel management, etc.
   (b) Are other Departments affected by this course. (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No.
9. Method of teaching: This course will be taught using a combination of lecture, class participation, projects requiring group interaction, cases studies, guest speakers, and field trips.

10. (a) Address potential enrollment pattern shifts in the department or college-wide as it relates to the offering of this course. Most enrollment is projected to come from students planning a business major. No noticeable shift away from any other one particular area is anticipated.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course. This course will be taught by a new Faculty member to be hired on the approved hospitality and tourism position line.

11. Requirements for additional resources made necessary by this course:
(a) Staff: Current adjunct pool.
(b) Budget: Current adjunct pool.
(c) Library: None.

(Note: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: Rhonda McPherson
   Date submitted: 3/29/96

14. Signature of School's Dean: Fred W. Ryder
    Date: 2-19-96

15. Signature of Budget Director, Business Affairs Official: Revised as per Committee's instruction
    Date reviewed:

16. Signature of Curriculum Committee Chair: Donald Bennett
    Date approved: 3/21/96

17. Signature of Faculty Senate, Secretary: ________________________ Date approved by Senate: ________________________

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(If an additional diskette for word processing of this form is desired, please send a blank diskette to Chivon Jenkins, Undergraduate Studies. This form last revised April 24, 1994 and replaces all others.)
Memorandum

To: Trisha Folds-Bennett, Chair, Curriculum Committee
From: Lou Burnett, Chair, Department of Biology
Jim Deavor, Chair, Department of Chemistry and Biochemistry
Bob Dukes, Chair, Department of Physics and Astronomy
Bill Golightly, Chair, Department of Mathematics
George Pothering, Chair, Department of Computer Sciences

Date: February 9, 1996
Re: Proposal to Modify the Requirements for a Minor

The faculty in the School of Sciences and Mathematics have studied the language in the 1994-1996 undergraduate bulletin on the requirements for minors (page 108). According to the bulletin, minors “must include a minimum of six three-hour or four-hour courses selected from a formally designated group.” This requirement would result in a student taking a minimum of 18 semester hours and as many as 24 semester hours for a minor.

In the science departments in the School, two four-unit courses are prerequisites for all upper division courses within the discipline. Thus, students who wish to minor in any science must take at least 20 semester hours. Furthermore, it is unlikely that a student would complete the minor in any science discipline by taking only 3-unit upper division courses, since most upper division courses are 4 units because they are accompanied by laboratories. So it is more likely that a student fulfilling a “six course” requirement would accumulate 21 or 22 semester hours within the discipline. Interestingly, it is possible for a major program and a minor program both to require 24 semester hours of work (see page 107, last paragraph of the 1994-1996 undergraduate bulletin). Furthermore, most programs listed in the undergraduate bulletin state requirements in terms of semester hours and not courses.

Most, if not all, minors outside the School of Sciences and Mathematics can technically be fulfilled by a student taking 18 semester hours of courses. We feel that the current policy does not recognize the significance and the importance of laboratory experiences the students obtain in introductory and upper division courses. Although students generally earn only one unit of credit for a laboratory, they spend two to three hours in the laboratory or field gaining knowledge and experience that complements and supplements information in the lecture portion of the course.

Thus, we suggest that the minor requirement outlined in the undergraduate bulletin is overly restrictive and penalizes science departments which offer the majority of courses as four unit courses. It is even more important to recognize that students are penalized. We recommend, therefore, that the current policy be changed.
To: Trisha Folds-Bennett
From: Dept. Chairs, School of Sciences and Mathematics
Date: February 8, 1996
Re: Proposal to Change the Minor
Page: 2

The current policy is stated on page 108 of the 1994-1996 Undergraduate Bulletin as follows:

**Concentrations and Minors.** A student may elect to pursue a program of study organized around a particular theme within the major discipline—a concentration—or outside the major discipline—a minor. Both concentrations and minors will be shown on the student’s transcript. Either program must include a minimum of six three-hour or four-hour courses selected from a formally designated group. ...

We propose the following.

**Concentrations and Minors.** A student may elect to pursue a program of study organized around a particular theme within the major discipline—a concentration—or outside the major discipline—a minor. Both concentrations and minors will be shown on the student’s transcript. Either program must include a minimum of six three-hour or four-hour courses selected from a formally designated group. Either program must require at least 18 semester hours from a formally designated group of courses. ...

A student could fulfill this requirement by taking five 4-unit courses. A student fulfilling the requirements in this way will receive a total of 15 contact hours of training in lecture and 15 contact hours of training in laboratory (most laboratory courses are three hours long) for a total of 30 contact hours for the minor. This perspective more accurately describes the experiences a student would gain with a minor in our school.

Approved: 

[Signature]
Gordon E. Jones, Dean

[Signature]
Date: 2/12/96
COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Biology

2. Course number and title: BIOL 406, Conservation Biology
   Number of credits: 3  Total hrs/week: 3  Lecture: 3  Lab: 0

3. Course will be offered first: Spring 1997

4. Catalog description (please limit to 50 words):
   A course exploring the origin, maintenance and preservation of biodiversity at all levels: genetic, population, community, ecosystem and biosphere. The focus will be on applying ecological, genetic and evolutionary principles to problems in conservation. Optional field trips will make use of the rich biota of the Charleston area.

   Check if appropriate: __Humanities __Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions):
   BIOL 341 (General Ecology) and either BIOL 311 (Genetics) or BIOL 350 (Evolution), or permission of the instructor.

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
   The goal of this course is to provide an in-depth understanding of the application of ecological, evolutionary and population-genetic theory to the maintenance of biodiversity. The course will investigate the scientific principles which underlie the establishment of sound conservation strategies, and will help students understand the links between basic and applied research.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   Genetics (BIOL 311) and General Ecology (BIO 341) are two of the "core" courses in the Biology major. Conservation Biology will provide undergraduate majors and graduate students the opportunity to explore the applications of genetic, ecological and evolutionary principles to an applied problem, the conservation of biodiversity. Conservation Biology thus is a "synthesis" course, one that cuts across taxonomic boundaries and demonstrates the interconnections between other biological subdisciplines. Many of the other upper-division courses (e.g., Biology of Fishes, Comparative Anatomy of Vertebrates, Entomology, Herpetology, Invertebrate Zoology, Ornithology) are more taxon-centered. Conservation Biology also will expand the non-marine biology course offerings available to students in the nascent graduate program in Environmental Studies, thus complementing an existing strength of this curriculum.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course will enhance the major by demonstrating the interrelationships between ecology, evolution and genetics, and their practical applications to an applied problem, the preservation of biodiversity.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
   Not a non-majors course.

   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   No.
Method of teaching:
Lecture (with discussion of the primary literature) plus in-class demonstrations that will emphasize simulations of population dynamics and population genetics. Guest speakers from within the Department of Biology, other departments, and from industry, agencies, and nongovernmental organizations will add expertise and breadth to lectures and in-class discussions. Optional field trips will introduce students to conservation solutions that are being effected in the Charleston area. Graduate students will be required to write a grant proposal, species-recovery plan, proposal for listing, or a similar professional document.

9. **Method of teaching:**
Lecture (with discussion of the primary literature) plus in-class demonstrations that will emphasize simulations of population dynamics and population genetics. Guest speakers from within the Department of Biology, other departments, and from industry, agencies, and nongovernmental organizations will add expertise and breadth to lectures and in-class discussions. Optional field trips will introduce students to conservation solutions that are being effected in the Charleston area. Graduate students will be required to write a grant proposal, species-recovery plan, proposal for listing, or a similar professional document.

10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.
The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering the courses as 400/600 level courses, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

(c) Frequency of offering:   
- each Fall
- each Spring
- every two years
- every three years
- other (Explain)

11. Requirements for additional resources made necessary by this course:

(a) **Staff**  The Department of Biology continues to struggle to offer enough spaces in upper division biology courses (see 10a and 10b above). This course fill some of that need and also serve students in the Environmental Studies Program.

(b) **Budget**  Optional field trips will require vans, which the department will pay for from its operating budget.

(c) **Library**  The department has requested a major journal, *Biological Conservation*. Some additional books will be purchased through the normal ordering process.

(Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
13. Signature of Department Chair: 
   Date submitted: 2/7/96

14. Signature of School's Dean: 
   Date: 2/9/96

15. Signature of Business Affairs Official: 
   Date reviewed: 2/12/96

16. Signature of Curriculum Committee Chair: 
   Date approved: 2/21/96

17. Signature of Faculty Senate Secretary: 
   Date approved by Senate: 

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn.: Rhonda Spell)
4. Academic Affairs Office (Attn.: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)
1. **Department:** Biology

2. **Course number and title:** BIOL 421, Topics in the Physiology, Cell and Molecular Biology of Marine Organisms
   - **Number of credits:** 3  
   - **Total hrs/week:** 9  
   - **Lab:** 0

3. **Course will be offered first:** Summer 1996, this course is intended only for summer

4. **Catalog description (please limit to 50 words):**
   A course for students with interests in cellular, molecular and physiological approaches to research in marine biology. Specific lecture topics center on environmental bioindicators, developmental biology, organismal and environmental physiology, immunology and population genetics of marine organisms.
   - **Check if appropriate:** Humanities  
   - Social Science (meets minimum degree requirements)

5. **Prerequisites (or other restrictions):**
   - BIOL 312 or 313; BIOL 321; and permission of the instructor

6. **Rationale/justification for course (consider the following issues):**
   - **(a) What are the goals and objectives of the course?**
     - The goal of this course is to allow advanced science majors to experience how working scientists approach problems in specific areas of marine biology. In addition, this course will provide students interested in pursuing a career related to marine biology with an understanding of how tools in cellular and molecular biology and physiology may be used to answer questions in marine biological research. Field trips to local habitats will familiarize students with the environmental conditions in which local marine organisms live and reinforce the themes of environmental biology emphasized in the course.

   - **(b) How does the course support the mission statement of the department and the organizing principles of the major?**
     - This course integrates a number of significant areas of the core biology curriculum. It may be especially useful to students majoring in Marine Biology or Biology with an Emphasis in Molecular Biology.

7. **For courses in the major, how does the course enhance the beginning, middle, or end of the major?**
   - This course will assist Biology and Marine Biology majors in deciding whether they would like to pursue a career in scientific research by (1) directing students to a number of current research topics currently being pursued by scientists associated with the College of Charleston and (2) providing appropriate incentives and independence to explore questions of specific interest to the student.

8. **(a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?**
   - NA

   **(b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)**
   - Department of Chemistry and Biochemistry

9. **Method of teaching:**
   - Class will be primarily lectures. Students will be provided with handouts and readings from the current literature.
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.

It is anticipated that this course will not significantly influence enrollment patterns at the departmental or college-wide level. Students enrolled in this course are expected to be advanced (400-level) students at the College of Charleston and advanced students from other colleges and universities who are interested in research careers employing modern scientific techniques to address questions in marine biology. Students enrolled from outside the College of Charleston will be drawn largely from the Fort Johnson Summer Research Program, which provides a small number of fellowships to selected applicants from around the United States. This course has operated successfully as a Special Topics course for several years in conjunction with the Fort Johnson Summer Research program. While the course was operated in conjunction with the summer research program, students may be enrolled in the course without being a part of the summer research program. The research program and course have gained a good reputation nationally. Students apply for entry into the summer program since research space and stipends are limited. Because of the quality of the experience and the support, the quality of the students in both the course and the program has been very high. Course enrollments have typically been 8 or fewer.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

This is exclusively a summer course and will, therefore, not affect staffing in the department. Staff for this course will be drawn primarily from research scientists at Fort Johnson.

11. Requirements for additional resources made necessary by this course:

(a) Staff    none

(b) Budget    Photocopy expenses for course flyers (1,000 flyers) - $35 (mailings will "piggy-back" those of the Marine Biology Graduate Program; Photocopy expenses for class handouts - $75

(c) Library    no additional requirements

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

This course has been offered as Special Topics (Biology 502). A course syllabus is appended.
REVIEW/APPROVALS

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Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(For additional copies of this form, please photocopy the blank form. If a diskette for word processing of this form is desired, please send a blank diskette to Tonya Pharr, Undergraduate Studies. This form last revised March 23, 1995 and replaces all others.)
COLLEGE OF CHARLESTON
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Biology

2. Course number and title: BIOL 444, Plant Ecology
   Number of credits: 4   Total hrs/week: 6   Lecture: 3   Lab: 3

3. Course will be offered first: Fall 1996

4. Catalog description (please limit to 50 words):
   Plant Ecology will explore the population ecology of plants covering the genetic, spatial, age and size structure of plant populations. The focus will be on understanding the origin of these different kinds of structures, understanding how they influence each other, and understanding why they change with time.

   Check if appropriate: ___ Humanities ___ Social Sciences (meets minimum degree requirements).

5. Prerequisites (or other restrictions):
   BIOL 111, 111L, BIOL 112, 112L, and BIOL 341, General Ecology, or permission of the instructor.

6. Rationale/justification for course (consider the following issues): (Note: if more space is needed, attach additional sheets to this form).
   (a) What are the goals and objectives of the course?
      The goals of this course are to provide an in-depth understanding of ecological concepts as they apply to plants (the focus will be on terrestrial plant communities). For both undergraduates and graduate students, the course will provide a detailed examination of ecological theory and the application of theory as it pertains to plants. The course will familiarize students with experimental techniques in plant ecology and with the primary literature. The course will expand upon the ecological principles covered in general ecology.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
      General Ecology is a "core" course for biology majors. The department also has a botany requirement for majors. Plant Ecology will provide majors with the opportunity to explore ecological principles and plants in greater detail. Also, despite the botany requirement, the Biology Department offers relatively few specialized courses in which undergraduates can expand beyond a very general botany background (e.g., phycology) whereas the zoological side of our department offers a plethora of specialized courses (e.g., ornithology, herpetology, the biology of fishes, parasitology, zoogeography, animal behavior, etc.).

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?
   This course would enhance the end of the major by providing an opportunity for majors to explore ecology and plants in greater detail (see discussion above).

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?
      N/A.

   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
      N/A.
9. **Method of teaching:**
Lecture, plus a laboratory section that will emphasize experimental ecology. About 1/3 of the laboratories will also be dedicated to a discussion of papers from the primary literature. Graduate students will be required to write an extensive research paper derived from the primary literature with an emphasis on conceptual issues in plant ecology. Graduate students will be expected to exhibit greater depth of understanding than undergraduates in essay exams, laboratory reports and laboratory discussion. Grading will reflect these different expectations.

10. (a) **Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.**
(b) **Address potential shifts in staffing of the department as it relates to the offering of this course.**
The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering the courses as 400/600 level courses, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

(c) **Frequency of offering:**
- X each Fall
- every two years
- each Spring
- every three years
- other (Explain)

11. **Requirements for additional resources made necessary by this course:**
(a) **Staff** The Department of Biology continues to struggle to offer enough spaces in upper division biology courses (see 10a and 10b above). This course will fill some of that need and will also serve students in the Environmental Studies Program.

(b) **Budget** No special supplies or materials are required for this course that are also not required for BIOL 341, General Ecology. Some materials have already been purchased that can be used in many such field courses. There are no additional costs associated with this course.

(c) **Library** None anticipated.

12. **Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).**
13. Signature of Department Chair: [Signature]
   Date submitted: 2/7/96

14. Signature of School's Dean: [Signature]
   Date: 2/6/96

15. Signature of Business Affairs Official: [Signature]
   Date reviewed: 2/12/96

16. Signature of Curriculum Committee Chair: [Signature]
   Date approved: 3/21/96

17. Signature of Faculty Senate Secretary: ____________________________
   Date approved by Senate: ____________________________

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)
1. **Department:** Biology

2. **Course number and title:** BIOL 503, Special Topics in Ecology

   - **Number of credits:** 3-4
   - **Total hrs/week:** 3-6
   - **Lecture:** 3
   - **Lab:** 0-3

   This course may sometimes include a lab in which case the number of credits will be 4.

3. **Course will be offered first:** Spring 1997

4. **Catalog description (please limit to 50 words):**

   Investigation of advanced, specific areas of ecology beyond General Ecology (BIOL 341). Examples of offerings may include marine microbial ecology, phytoplankton ecology, benthic ecology, community ecology and population ecology.

   Check if appropriate: _Humanities _Social Sciences (meets minimum degree requirements)

5. **Prerequisites (or other restrictions):**

   BIOL 111/111L, BIOL 112/112L, and BIOL 341 (General Ecology) or permission of the instructor.

6. **Rationale/justification for course (consider the following issues):**

   (a) **What are the goals and objectives of the course?**

   To provide both undergraduate and graduate students with training in advanced and more specialized areas of ecology. Anticipated topics include benthic ecology, phytoplankton ecology, marine microbial ecology, population ecology, and community ecology. One major objective is to provide additional course options for graduate students in both Marine Biology and Environmental Studies. This course will expose potential and incoming graduate students to new faculty and new areas of study which are currently not well represented in our course offerings.

   (b) **How does the course support the mission statement of the department and the organizing principles of the major?**

   General Ecology (BIOL 341) is one of the “core” courses in biology. Special Topics in Ecology will give both undergraduates and graduate students an opportunity to focus more specifically on particular areas within ecology and/or apply principles learned in general ecology to specific ecosystems. Specifically for the Marine Biology programs, the proposed course will provide a variety of options for exploring the interactions of specific groups of organisms with their physical and biological surroundings. This will augment the relatively larger number of courses focused at or below the level of the individual organism.

7. **For courses in the major, how does the course enhance the beginning, middle, or end of the major?**

   This course will enhance the end of the major by allowing students interested in the broad field of ecology to further their understanding of central principles while allowing them to focus on specialized areas within ecology, giving them the more specific training that they will need for graduate school or future employment.

8. **(a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines?**

   N/A

   **(b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)**

   N/A
9. **Method of teaching:**
Methods will range among the various courses to be taught under the BIOL 503 listing from lecture plus discussion to lecture with lab. Students will have two written essay exams and one term paper (presented in both oral and written formats) plus one research proposal (NSF format). Lectures will be derived from the primary literature as well as the main text, and will focus on concepts. The proposal will require that students consider the most pressing problems in the field and synthesize the literature to develop a clear plan of action.

However, because this is a special topics course, the methods of teaching may be different depending upon topic and instructor.

10. **Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.**

(b) **Address potential shifts in staffing of the department as it relates to the offering of this course.**
The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering the courses as 400/600 level courses, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

(c) **Frequency of offering:**
- ___ each Fall
- ___ every two years
- ___ each Spring
- ___ every three years
- X every other (Explain)

11. **Requirements for additional resources made necessary by this course:**

(a) **Staff**
The Department of Biology continues to struggle to offer enough spaces in upper division biology courses (see 10a and 10b above). This course will fill some of that need and will also serve students in the Environmental Studies Program.

(b) **Budget**
No special supplies or materials are required for this course that are also not required for BIOL 341, General Ecology. Some materials have already been purchased that can be used in those offerings of BIOL 503 that include a field component. There are no additional costs associated with this course.

(c) **Library**
None anticipated.

(Note: Course requiring additional resources will need special justification.)

12. **Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).**
BIOL 503, Special Topics in Ecology
New Course Proposal

REVIEW/APPROVALS

13. Signature of Department Chair: [Signature]
   Date submitted: 2/7/96

14. Signature of School’s Dean: [Signature]
   Date: 2/9/96

15. Signature of Business Affairs Official: [Signature]
   Date reviewed: 2/12/96

16. Signature of Curriculum Committee Chair: [Signature]
   Date approved: 3/21/96

17. Signature of Faculty Senate Secretary: [Signature]
   Date approved by Senate: ______________________

Completed forms should be sent by the Graduate Studies Office to the following:
1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course fee structure in SIS)
5. Academic Affairs Office
1. Department: Biology

2. Course number and title: 440, Evolution

3. Changes Desired: There are two changes we wish to make.

   First, we wish to renumber the course to a 300-level course to reflect the removal of the BIOL 311 prerequisite that occurred a number of years ago.

   Second, we wish to add this course to our central or core courses. Students will have the option of taking a course from three of five groups instead of four. The evolution course will form the fifth group.

   Catalog description (please limit to 50 words): The catalog description is unchanged from the current description.

   A study of the mechanism and patterns of plant and animal evolution, with emphasis on the species level of organization. Lectures, three hours per week.

   Prerequisites (or other restrictions):
   Biology 111, 111L, 112, 112L (i.e., the standard prerequisites for 300-level biology courses).

4. Rationale/justification for course changes:

   Evolution integrates a number of important disciplines in biology in an attempt to explain the results and the mechanisms of changes through time in living organisms. The department feels that students should have the opportunity to become acquainted in a focused way with the unifying concepts of biology on which evolution is based.

   Offering a fifth category of central or core courses will provide the students with more choices in the biology curriculum. While the concept is pedagogically sound, it offers some direct benefits to students who, because of enrollment pressures, often find it difficult to enroll in the core courses. This course will have no budgetary impact on the College.

5. Date Approved by Dept.: N. 14, 1994
   Date Submitted: R. 16, 1994

6. Signature of School's Dean: [Signature]

7. Signature of Department Chair: [Signature]
1. Department: Biology

2. Course number and title: 341, General Ecology

3. Changes Desired: We wish to add the prerequisite of one year of chemistry.

Catalog description (please limit to 50 words):
Consideration of organisms and their environmental relationships. Lectures, three hours per week; laboratory, three hours per week.

Prerequisites (or other restrictions):
Biology 111, 111L, 112, 112L (i.e., the standard prerequisites for 300-level biology courses), one year of chemistry.

4. Rationale/justification for course changes:
The field of ecology deals with subject matter that is broadly cross disciplinary. Organisms interact with their environment and these interactions are often chemical interactions or result in changes to the environment that are chemical in nature (e.g., the recycling of nutrients). The department feels that one year of chemistry will better prepare the students to learn ecology.

This change will have virtually no budgetary impact since all biology majors must take chemistry.

5. Date Approved by Dept.: 12-7-94

6. Signature of School's Dean:

7. Signature of Department Chair:
The Welfare reconvened yesterday to consider the remanded proposal on bicycle safety. Given the previously described issues, we make the following proposals:

Proposal #1: The College of Charleston administration should work with Public Safety to ensure that:
   a. bicycle rules are given to students and staff upon the registration of bicycles,
   b. rules are printed in the student newspaper and posted in prominent locations around campus,
   c. bicycle racks are repositioned to perimeter entrances of pedestrian areas, and
   d. bicycle rules are enforced.

Proposal #2: Representatives of the College of Charleston who have necessary authority should meet with City of Charleston officials to develop strategies to improve bicycle, pedestrian, and vehicular safety in and around campus. These should include but are not limited to:
   a. establishing designated bicycle lanes on streets bounding and intersecting the campus;
   b. adding a crosswalk on St. Philip Street at Liberty Street;
   c. slowing traffic during peak school hours on Calhoun, Coming, St. Philip, and Wentworth; and
   d. closing George Street (between St. Philip and Coming) between 7:30 and 4:30.
Add to Agenda for the April 2, 1996 Faculty Senate Meeting

Between Committee on Nominations and Elections and Academic Standards Committee:

Graduate School Proposals:

1) Master of Education in Science and Mathematics
2) List of Master's Candidates for May
3) Course proposals for the following:

- Biol 503
- Biol 645
- Engl 557
- Engl 563
- Evss 628
- Evss 629
- Evss 681
- Puba 650
# MASTER OF EDUCATION IN SCIENCE AND MATHEMATICS

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MASTER OF EDUCATION IN SCIENCE AND MATHEMATICS

March 5, 1996

CLASSIFICATION

The University of Charleston, S.C., proposes to offer the degree of Master of Education in Science and Mathematics. The proposed starting date is the Fall semester of 1997. The program falls in the category of CIP 13.1399 (Teacher Education, specific academic and vocational programs, other) of the USDE's Classification of Instructional Programs.

JUSTIFICATION

Purposes and objectives

There is renewed realization of the need to address science and technology literacy. Educational institutions and associations, professional science societies, and state and national governments have adopted the goal of increasing science literacy for all segments of the population in the United States. The National Science Teachers Association Position Papers, Science for All Americans, and Benchmarks for Science Literacy from Project 2061 of the American Association for the Advancement of Science, and publications of the National Council of Research all specifically state that attention to science and technology education is a national imperative and demands a wide-spread systemic approach to meeting the need.

This same urgency is seen in the Curriculum and Evaluations Standards For School Mathematics of the National Council of Teachers of Mathematics presently being implemented across the United States. At the state level the South Carolina Mathematics Curriculum Frameworks document addresses this need and specifies practices that are designed to serve the state’s needs. The proposals of these documents are supported by extensive research to identify and develop curriculum, materials, reforms, and pedagogy to accomplish the goal of producing a mathematics and science literate society for the next century.

The School of Education and the School of Sciences and Mathematics will offer a Master of Education in Science and Mathematics. The purpose of this program is to offer graduate level courses in the sciences, mathematics, and education appropriate for teachers. This program is based on the belief that the key to extensive improvement in Sciences and Mathematics education in the United States is the classroom teacher. Graduates of this program will implement in the classroom: knowledge of the discipline, teaching, and leadership skills that will raise the level of science and mathematics learning in their own classrooms and in those of their colleagues as well.
Content courses in science and mathematics will be offered by faculty in the discipline using pedagogical practices consistent with the discipline and appropriate for the K-12 classroom curriculum. Education content and integrated courses (courses which integrate several disciplines along a theme line) complement the science and mathematics content component of the program by emphasizing the interrelationships that exist among the science and mathematics content areas and across the K-12 curriculum. This program will enhance teachers' knowledge and impart successful ways of building science and mathematics concepts in K-12 classrooms.

This program is aimed at practicing teachers and is not designed as a certification program. The program's intention is to strengthen and broaden these teachers' science, mathematics, and education knowledge and understanding for use in elementary, middle, and high school classrooms.

Relationships to Other Programs at the College of Charleston and the University of Charleston, S.C.

The second paragraph of the institution's statement of purpose adopted by the College of Charleston Board of Trustees in January of 1991 reads that the institution:

"...provides an increasing number of master's degree programs which are compatible with the community and the state."

Designing and conducting graduate programs which meet the needs of the community is an institutional goal (from instructional goal 9 of the Statement of Institutional Goals approved by the State College Board of Trustees on March 12, 1986). As indicated above, the proposed Master of Education in Science and Mathematics degree clearly fits this statement of purpose.

The University of Charleston currently offers master's degree programs in Marine Biology, Mathematics, Elementary Education, and Environmental Studies. These programs are designed for graduate students who will assume responsibilities at the local, state, and federal levels. Most graduates pursue careers in government agencies or industry.

For over 20 years the Marine Biology Program has produced students who have focused on basic and applied research. This program is administered through the Department of Biology at the University of Charleston. The graduate faculty are broadly represented by scientists from local institutions, including the University of Charleston, The Citadel, MUSC, the National Marine Fisheries Service Laboratory, and the South Carolina Marine Resources Research Institute (a division of the South Carolina Department of Natural Resources).

The master of science degree program in mathematics at the University of Charleston is intended to help prepare students for professional opportunities in business, industry, and government which require training at the graduate level. The proposed program takes advantage of the strengths of the program offered by the Department of Biometry and Epidemiology at
MUSC by utilizing MUSC's statistical methods courses to supplement its course offerings. Additionally, Citadel faculty teach courses in the MS program in mathematics. The Citadel offers a masters of education in mathematics for secondary math teachers. The proposed program and existing programs are designed for substantially different audiences. The proposed program is not expected to compete for students with our other masters programs, except for the overburdened Elementary Education program, which would welcome an in-house option for a different masters program for teachers. Traditionally, there is little competition for students between pure science/math masters programs and education programs emphasizing science and math. We fully expect that to be the case here also.

The 1987 CHE Review Report states that the B.S. Program in Mathematics at the College of Charleston, with three options in Pure Mathematics, in Applied Mathematics, and in (secondary) Teaching, offers good flexibility and diversity to majors. The report further states how strong and dedicated the faculty are as they continue to support and encourage research productivity. The report acknowledges the fact that the Mathematics Department has sufficient library resources, adequate equipment, and good labs for their students.

The 1992-93 College of Charleston Fact Book states that the master's degree in Elementary Education at the University of Charleston serves the largest percentage of students at the University, having grown over 180% in the past seven years. This master's degree program currently has major fundamental education courses in place which will meet some of the proposed program's requirements. The School of Education has recently hired two faculty members specializing in science education. They will work collaboratively with the faculty from the School of Sciences and Mathematics in order to establish innovative courses with effective pedagogy for the Master of Education in Science and Mathematics curriculum.

The strong connection between the new and existing programs is evident because a number of the core courses and elective courses are currently offered at the University of Charleston. Thus, the University of Charleston Master of Education in Science and Mathematics would strengthen all local masters programs, but would not draw from the same population of potential students. Another strength lies in the commitment of the administration of the Schools of Science and Mathematics and of Education to support collaboration between the two schools and their faculties to develop and teach the courses necessary for this program. However, additional faculty will be necessary. The new faculty will blend into the existing programs, thus strengthening current research areas.

Additional sections of the education courses that exist would be opened as required to accommodate the new students for this program. All the education courses have an individualized component. For example, students would take Educational Research to learn the range educational research traditions and then focus on studies from their discipline. Science teachers would study science education research and so on. These education courses already incorporate technology. In the research course, computers are used to analyze quantitative data and categorize qualitative data.
Technology is increasingly important in today's world and, therefore, is essential in the schools. Every class listed by the program has a technology component. Technology involved in the educational research class has been mentioned. Technology is already used in EDEE 670 (Science for Elementary Teachers) in the form of laser discs, computers, VCR's, and a multitude of measuring devices ranging from graduated cylinders to clocks. The same technology emphasis is included in the science courses and will include technologies ranging from pH meters to on-line services, such as data bases available through sources such as the Internet and World Wide Web. Professors of education at the University of Charleston have for some time included technology in the classroom. Professors in the sciences and mathematics have incorporated pedagogy and technology with content through institutes such as Woodrow Wilson.

Relationships With Like Objectives at Other Institutions in South Carolina and Other States

Other Master of Education programs exist in South Carolina, at U.S.C. and Clemson. Both schools are a substantial distance from Charleston and would draw students from different geographical areas of the state. The program brochures from both institutions list a Master of Education, with an emphasis in science. Both programs as currently described are significantly different from the program proposed by the University of Charleston. These other state programs, as well as the M.Ed. programs in biology and mathematics at The Citadel and the M.Ed. in Secondary Education at Charleston Southern University, follow the national norm in science and mathematics education, in which science, math, and education are separate components, unlike our proposed integrated approach.

The University of South Carolina offers an Interdisciplinary Master of Arts in Natural Science, a program which aims at certified elementary or middle level teachers. The program which had been offered only on the U.S.C. campus recently submitted a proposal under which some of the courses in their program will be offered by videotape to external sites. Each course would have the supplemental hands-on, investigative help of a middle school classroom teacher who has completed their program. For nearly 50% of the required course work, students would have to travel to the Columbia campus.

In our proposed program, establishing the K-12 teacher in a professional association with University science and mathematics faculty is a prime focus. This human touch with university faculty in all course work will create the benefits of a local network of contacts, access to advice, and outside speakers in the classroom. Our proposed program includes mathematics as well as chemistry, physics, geology, and biology. Additionally, this program provides for a capstone experience with mentoring and research options. Our science and mathematics courses provide for an integration of content, methods, and technology unlike what is found in more traditional programs. A student in the proposed program will be allowed to work at a variety of levels dependent on the student's interests, experience, and needs and will develop a K-12 vision of what pupils learn in science and mathematics rather than just on the level at which they teach.

The proposed program differs significantly from master's degree programs currently offered by The Citadel. The Citadel offers several advanced degrees for teachers. The only programs in
which there are possible overlaps with the proposed program for certified teachers would be the Masters of Arts in Education in the areas of Biology or Mathematics. The proposed program differs significantly from these and is aimed at a substantially different audience.

While The Citadel’s programs are aimed at secondary teachers of biology or mathematics, and provide valuable training in these two single disciplines specifically, the proposed program is designed to be multidisciplinary, with all participants required to take courses in mathematics and in science disciplines. This allows someone to explore several fields, in addition to their own (if they are secondary teachers) discipline. In addition, each student will be required to take interdisciplinary courses, designed and jointly taught by a team of instructors with differing expertise. For example, one interdisciplinary course, SMFT -- Materials Science, would be jointly taught by a physicist and a chemist, and would require that students solve problems by an approach that incorporates both chemical and physical perspectives. All courses would incorporate mathematics and the appropriate use of computers.

The proposed program would serve a different audience from those secondary teachers currently enrolled in The Citadel programs in mathematics or biology. This proposed program was designed to meet the needs of K-12 teachers who are increasingly being called upon to offer interdisciplinary perspectives on sciences and mathematics, or to teach in an area other than their primary area of training.

Course work from The Citadel and from MUSC which is consistent with the design of the proposed program may be applied toward the proposed degree. In particular, participation of science and mathematics faculty from The Citadel would be welcome. They have been approached and invited to participate. The Citadel has suggested nine particular courses which they offer and which they feel are consistent with the proposed program. These would be examined to determine if the combination of content, pedagogy, and technology are indeed consistent. Courses deemed to be consistent could be taken at The Citadel or at the University of Charleston. Any courses taught by Citadel faculty would carry FTG credit for The Citadel. The Citadel has indicated that some faculty from their science and mathematics departments would be willing to work with students in the program who are involved in research projects. Additionally, The Citadel would have representation on the program’s steering committee.

While most programs in the United States, including those of The Citadel, offering a Master’s Degree in Education in Science and Mathematics have separate education and science/mathematics content courses, the proposed program will integrate science and mathematics content with effective pedagogy. The teaching in all courses will model methodology appropriate for use in the participants’ classrooms. Science/mathematics and education courses will be designed specifically for teachers by teams of science/math/education faculty with input from respected classroom teachers. This approach is innovative, and recognizes that the needs of the teacher differ from those of other graduate or undergraduate students.

Nationally, science education master’s degree programs exist in several states, with Florida, Indiana, Iowa, Kansas, and Oregon listed as some of the largest and most innovative of
programs. Many of these programs require a strong education component of courses as well as science courses. No program has attempted to integrate the sciences and education as thoroughly as the University of Charleston program proposes. For example, the Oregon State Program appears to require 45 hours of course work for completion with 30 hours in science or mathematics education and 15 hours of a planned combination of science, mathematics or computer science content courses. At the University of Iowa students in a non-thesis masters program take 13 hours of science education, 17 hours of science content and eight hours of course work in one area of concern. Finally, at Purdue, students take six hours of specialization courses in education, 9-18 hours of education electives and the remainder of the required 33 hours in related study outside of the College of Education. Examination of these programs indicates various levels of an integrated approach, all with much less integration than in the proposed program, to provide professional advanced degrees for teachers of science and mathematics.

The proposed program follows the basic pattern found in several institutions across the U.S. that are designed to recognize that teachers of science need to be well versed in three major areas: experience in and knowledge of science, understanding of how children learn (science and mathematics specifically) and the inter-relationships and applications of the different science disciplines and mathematics in the recognition and solution of problems. The major difference between the University of Charleston program and the other programs described in this section is that the courses proposed herein intend to integrate these three major areas in all courses. For example, a science course would focus on science content, use appropriate pedagogy, and require students to recognize and solve problems. An education course would be based on education content, use science examples, and require students to recognize and solve problems.

Need for the program

In the Fall semester of 1992, a survey was conducted at a sample of three elementary, two middle, and three high schools in the tri-county area. The schools used represent a diversity of socio-economic and cultural backgrounds. Two kinds of questionnaires were used, one for elementary teachers and one for middle/high school teachers. The questionnaires explained in general terms the aims and purpose of the proposed degree. All teachers who teach science/mathematics were required to fill out and turn in the questionnaires. Teachers could respond “yes” or “no” as to their interest in such a program and make comments or suggestions. An earlier version of the questionnaire was sent out to a wider audience which could elect to respond. This occurred near the end of the school year and the response rate was very low. The questionnaires filled out by all teachers at the schools sampled allow for a more meaningful projection and extrapolation. Twenty-seven percent of the respondents (45 out of 164) indicated interest in the program.
Viewed by level, 36% (or 21 of 59) of elementary teachers, 18% of middle school teachers, and 33% of secondary teachers who teach mathematics or science expressed interest in the proposed program.

### Number of Teachers Who Teach Math or Science in The Tri-County Area in Public Schools

<table>
<thead>
<tr>
<th></th>
<th>Elementary</th>
<th>Middle</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charleston County</td>
<td>850</td>
<td>120</td>
<td>200</td>
</tr>
<tr>
<td>Dorchester County</td>
<td>345</td>
<td>34</td>
<td>63</td>
</tr>
<tr>
<td>Berkeley County</td>
<td>510</td>
<td>125</td>
<td>115</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1705</strong></td>
<td><strong>279</strong></td>
<td><strong>378</strong></td>
</tr>
</tbody>
</table>

\[(36\% \text{ OF } 1705) + (18\% \text{ OF } 279) + (33\% \text{ OF } 378) = 789\]

From the table and percentages provided above, an estimated 789 science/math teachers in the tri-county area public schools would be expected to express an interest in the proposed degree.

Additionally, a 1986 survey conducted by the Charleston Higher Education Consortium asked 3336 public school faculty and staff whether they wanted to earn a graduate degree higher than any degree they currently hold. Sixty-seven percent said they did.

The *Curriculum and Evaluation Standards for School Mathematics* of the National Council of Teachers of Mathematics (NCTM) has set national standards that must be met so that students may gain mathematical power. The South Carolina Mathematics Framework has developed content strands for each grade level in our state and emphasizes that new teaching techniques must be employed. The National Research Council has set similar standards for science, and
South Carolina is currently developing its science frameworks. Members of this masters committee are well acquainted with these national and state guidelines. Several committee members have served on panels to review these documents and many have already developed and offered courses implementing these standards as a main objective.

The preparation and development of education professionals is listed as Critical Need #2 in the July 1992 Report of the Governor’s Mathematics and Science Advisory Board (MSAB). The South Carolina State Systemic Initiative (SSI) proposal also states, “Teachers must take an active role in charting their own professional growth and have access to high quality professional development opportunities led by successful teachers and coordinators of science and mathematics.” Furthermore, courses should use the same techniques that teachers will implement in their classrooms (Principle #5, SSI, page 12). The overall goal of the SSI is to improve mathematics and science education for all students in South Carolina. The MSAB and the SSI both agree that the teacher is the key to change.

“Mathematics and science education will not improve until we supply an adequate basis at the early grades through existing teachers. The basis should be formed with an integrated approach among the content areas using appropriate pedagogy. I feel that this program provides a good blend and content level courses which are realistic.” (Sandra Powers, Member of Board of Directors, National Council of Teachers of Mathematics.)

This master’s program has been designed to address the needs stated above. Content for the courses will be selected in accordance with the content strands of the SC Mathematics and Science Curriculum Frameworks. Instructors will model innovative teaching techniques such as cooperative learning. Hands-on participation will be introduced so that teachers may see how to incorporate this technique into their own classrooms. Where appropriate, instructors will model methods of assessment and, in some courses, participants will develop their own assessment standards.

This program provides K-12 teachers the opportunity to pursue an interdisciplinary M.Ed. in Science and Mathematics. The current science reform movements of the National Research Council (NCR), Scope, Sequence & Coordination (SSC), and the American Association for the Advancement of Science (AAAS) all emphasize both (1) every science every year, and (2) the interdisciplinary nature of science. In keeping with the philosophy of the South Carolina Frameworks, the Trident area schools are focusing their curricula on (1) every science, every year in K-5, (2) units in middle school that call for variety in science knowledge, and (3) a national trend toward content integration in the high schools that require heavy reliance on broad based science experience. Tech prep courses also utilize a more interdisciplinary approach to teaching science than the traditional courses previously offered in the public schools.

The movement in the Trident area toward integrating the sciences with each other and with other content areas is an instructional paradigm shift. Note that all 16 Charleston County middle schools adhere to or aspire toward the model of content integration and interdisciplinary
instruction. Also, a growing number of high schools are teaching interdisciplinary science courses.

"I know that teachers in the school district are anxious to have the program available for their future professional development. ... The plan specifically seems to address the needs of the elementary, middle, and high school teachers. The integrated courses provide opportunities for integrating the disciplines in ways that are interrelated in the natural world."
(Carol Tempel, Coordinator, Charleston County School District Office of Math, Sciences, and Technology.)

The proposed program provides the student an opportunity to emphasize content within a single discipline through (B1) courses while promoting interdisciplinary (B2) courses. Chemistry, physics, and geology are not offered as an M.Ed. program at any of the higher education institutions in this area for either middle or high school teachers. A biology and a mathematics M.Ed. is offered at The Citadel, but we do not propose to compete with these programs. In fact, the University of Charleston has made a commitment to advise students desiring a singular, non-science integrated M.Ed. to enroll in The Citadel’s mathematics or biology programs.

Additionally, the proposed program will address a common need, that of teachers who teach two or more content disciplines, by making it possible for the student to take a variety of science courses and learn up-to-date content which could be carried back to their own classrooms.

"This masters program will provide the diversity in science training that our teachers at all levels have been requesting. Teachers who have degrees just in Biology or just Chemistry find it difficult to teach other areas of science. Most science teachers teach at least one science course outside their science major. Chemistry teachers are assigned one biology class to teach as well as biology teachers teaching chemistry."
(Pamela Coffey, Berkeley County School District Science Coordinator.)

The University of Charleston's proposed program for a Master of Education in Science and Mathematics is designed to bring teachers of science and mathematics in contact with scientists and mathematicians within the local university system to enhance the interaction between these groups. This program has been designed on the fundamental premise that teachers of science and mathematics are members of the science and mathematics professional community. It has been designed to build a place for teachers within existing science and mathematics departments. This is quite a revolutionary move, one that seeks to support active alliances between those who are involved with the sciences and mathematics as participants in the further development and expansion of humanity's understanding of the physical world with those who bear the responsibility for introducing students to an increasingly technological world.

"There is a real need for this type of program where courses stress the integration of science and mathematics content and incorporate technology into the instruction. The program of studies in this proposal provides a perfect blend of mathematics, science
and technology which will strengthen and enhance the knowledge of the practicing teacher. In addition, the Category C requirements, the Capstone Experiences, promote the notion of the teacher as a life-long learner and a member of the professional community which is one of the keystones of the South Carolina Mathematics Framework and the NCTM Standards.”

(Christine Pateracki, President, South Carolina Council of Teachers of Mathematics.)

This degree program seeks to further enhance the interaction between local teachers and the faculty of the University. The School of Sciences and Mathematics of the University of Charleston has been very active in programs which strengthen the fundamental knowledge of both teachers and pre-college students. This degree program would allow the science and mathematics departments to help deliver a coordinated, developmental sequence of course work for each teacher with the goal of helping to create a truly scientific and mathematically literate teaching force with a place in the academic institutions that deal with the subjects with which they are involved.

The core courses in this degree are to be designed by teams of science, mathematics, and education faculty and exemplary classroom teachers. The teaching methods and materials used in the core courses model methods and materials that can be used in the classrooms of the teachers. Each course will be developed using the most recent materials available. The college faculty and the consulting classroom teachers will be expected to be familiar with current curricula, advances in classroom technology, and alternate methods of teaching and assessment, and resources that are available to the schools in the state of South Carolina.

“"In fact, the establishment of this program is vital if we are to make significant changes aimed at preparing all students as scientific, mathematical, and technology literate citizens of the 21st century.”

(Paula Keener-Chavis, Director, Charleston Math and Science Hub.)

Finally, there are compelling non-numerical arguments supporting this degree proposal. The world community is becoming increasingly more dependent on technology and is requiring a society that is more literate in sciences and mathematics. Teachers who are proficient in mathematics and the sciences are desperately needed at each of the elementary, middle, and secondary levels. Teachers at all levels who teach science/mathematics need enough involvement with science/mathematics to be able to generate a positive attitude about these subjects in their students. Student attitudes about mathematics and science are established at early levels and need nurturing throughout the K-12 years. Techniques which will help teachers teach science and mathematics effectively are necessary as well.
Administration

The program will be administered by the University of Charleston, including initial funding, enrollment of students, management of budget and finances, and granting of degrees.

A graduate faculty will be selected from faculty at the University of Charleston. A faculty member must have primary assigned duties in one of the following departments: mathematics, chemistry, biology, geology, physics, elementary education, or foundations and specializations (includes secondary education programs) and indicate a desire to be a member of the graduate faculty of this program. Any changes in the curriculum must be approved by a vote of the graduate faculty of this program. Further, The Citadel will be contacted to determine which of their science, mathematics, and education faculty indicate a desire to be members of the graduate faculty of the program. Upon review and approval by the program’s Steering Committee, these would be added to the list of graduate faculty.

The program will be jointly governed by the School of Education and the School of Sciences and Mathematics. There will be a steering committee consisting of one director and two advisors from each school. Of the three members from the School of Sciences and Mathematics, at least one member must be from mathematics. Of the three members from the School of Education, both the elementary education and the foundations and specializations divisions must be represented. There shall be Citadel representation on the Steering Committee. The number of representatives will be negotiated by the two institutions. The Steering Committee will ensure the integrity and quality of the program and that content is consistent with the science and mathematics curricula in the schools. An ex officio mentor advisory board will be formed to ensure the quality of mentor experiences for the program. This board will consist of individuals who provide mentor experiences.

ENROLLMENT

A conservative estimate of the number of students in the proposed program is made by comparing the proposed program to numbers 30% in excess of our smallest education masters program (M.Ed. in Special Education, joint with The Citadel). This program serves a population of 667 special education teachers in the area and teaches about 348 credit hours each year. This equates to 116 people taking one course each, or 17% of the target teacher population. The estimate for the proposed program would then be 453 hours per year, after the phase in period. This is equivalent to 151 people taking one course each.

There are 2362 public elementary, middle, and secondary math or science teachers in the tri-county region, plus a substantial number in the private sector. If 17% of just the public school teachers took one course each, we would have to provide 1206 credit hours for 402 students, more than triple the size of the special education program. While the special education teachers have only one local masters degree option, the math and science teachers have alternative programs available. Consequently, we are comfortable projecting enrollments in the proposed program to be scaled down from the 402 student figure to 130% of the number of participants in
the special education program. This reflects a participation rate of less than one-third of the participation rate of the teachers served by the special education masters program. The following chart reflects an increase over three years, to this conservative level.

Most of these hours will be generated by part-time students. The following tables reflect this fact and that a phase-in period of three years is expected.

TABLE 1
ANTICIPATED ENROLLMENTS FOR EACH FALL TERM FOR FIVE YEARS
(Beginning in 1997)

<table>
<thead>
<tr>
<th>Fall Year</th>
<th>Full-time</th>
<th>Part-time</th>
<th>Head-count (FT+PT)</th>
<th>Total enrollment=(FT X 3 courses)+(PT X 1 course)*</th>
<th>SCHs = Enrollment 3 Hours</th>
<th>FTEs = (SCH + 12)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>2</td>
<td>24</td>
<td>26</td>
<td>30</td>
<td>90</td>
<td>7.5</td>
</tr>
<tr>
<td>1998</td>
<td>3</td>
<td>36</td>
<td>39</td>
<td>45</td>
<td>135</td>
<td>11.25</td>
</tr>
<tr>
<td>1999 Base Year</td>
<td>4</td>
<td>48</td>
<td>52</td>
<td>60</td>
<td>180</td>
<td>15</td>
</tr>
<tr>
<td>2000</td>
<td>4</td>
<td>48</td>
<td>52</td>
<td>60</td>
<td>180</td>
<td>15</td>
</tr>
<tr>
<td>2001</td>
<td>4</td>
<td>48</td>
<td>52</td>
<td>60</td>
<td>180</td>
<td>15</td>
</tr>
</tbody>
</table>

Note: *Full-time for graduate students at the University of Charleston, SC, is considered to be three (3-hour) courses, and part-time is considered to be one (3 hour) course. For FTE calculations, a full-time student is considered to be taking 12 graduate hours per semester.

**For CHE purposes, FTE is equal to 12 semester hours.

TABLE 2
Number of Estimated Additional Credit Hours

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Term</th>
<th>Spring Term</th>
<th>Summer Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997-98</td>
<td>90</td>
<td>90</td>
<td>48</td>
</tr>
<tr>
<td>1998-99</td>
<td>135</td>
<td>135</td>
<td>72</td>
</tr>
<tr>
<td>1999-2000</td>
<td>180</td>
<td>180</td>
<td>93</td>
</tr>
<tr>
<td>2000-01</td>
<td>180</td>
<td>180</td>
<td>93</td>
</tr>
</tbody>
</table>
CURRICULUM

The proposed program is a radical departure from the more traditional programs existing and expanding in South Carolina and elsewhere. Our program allows the teachers to interact with the entire faculty of the School of Sciences and Mathematics. Scientists and mathematicians, with very strong interest in pre-college education, will constitute the majority of the exposure the participants in the program will get. This program constitutes perhaps the strongest commitment made anywhere by a university level coalition of science and mathematics faculty to a teacher enhancement master's degree program. Many teachers, particularly those with elementary emphasis, have vastly more pedagogical education and experience than they do content. This program involves a marriage of content and pedagogy.

The proposed program has, by intention, an amorphous grade level specification on many courses. It is the goal of the program to have participants placed in courses consistent with their experience, training, local needs, and SC Framework goals. This placement will be accomplished by close coordination between the participant, the advisor, the steering committee, and the program directors.

The proposed curriculum will be subject to the policies of the Graduate School at the University of Charleston. A total of 36 hours would be required for completion of the program, with courses selected from the following four categories.

1). **Category A:** Fundamental Education Curriculum (9 hours)
2). **Category B1:** Fundamental Science and Mathematics Curriculum (at least 14 hours)
3). **Category B2:** Integrated Science Courses (6 hours)
4). **Category C:** Capstone Experiences (at least 6 hours)

Category A courses would be offered by the School of Education. The three courses are designed to provide teachers with an opportunity to understand science and mathematics education from philosophical, psychological, and historical perspectives. Another emphasis is placed on educational research.

Category B1 courses would be offered by the School of Sciences and Mathematics. A minimum of two science courses and one mathematics course is required from Category B1. Each of the B1 classes will involve a computer component to introduce teachers to available software and to provide experience working with programs suitable for classroom use. Throughout each course, teachers would acquire conceptual knowledge of appropriate scientific and mathematical processes, with the expectation of developing classroom activities primarily appropriate for their grade levels.

Category B2 courses are also offered by the School of Sciences and Mathematics and are designed to use an integrated, interdisciplinary approach to investigate applications of scientific principles. Emphasis will be given to topics of current or local interest and/or across the curriculum. Also, a student may take courses currently offered in our existing master's degree programs.
Category C courses are capstone courses which emphasize faculty supervised research, internship, graduate science, and mathematics course work, or a course designed to teach them how to maintain excellence in their disciplines through grants, curriculum development, and policy issues. Students may select from among:

SMFT ___ CAPSTONE SEMINAR  
EDFS ___ CURRICULUM, POLICY, AND SYSTEMS IN SCIENCE AND MATHEMATICS EDUCATION  
SMFT ___ THESIS (based on a research experience, an internship experience, a project development experience, or another area approved by the Steering Committee)

The following is a list of courses proposed for the program. It should be pointed out that the course prefix SMFT stands for “science and mathematics for teachers.” A course sequence for the first three years is presented in Table 3. Sample plans for study for elementary, middle, and high school teachers are outlined in Table 4. Course descriptions follow the sample plans of study. Existing graduate courses in science and mathematics from the University of Charleston’s programs in Marine Science, Environmental Studies, and Mathematics. Courses offered by The Citadel and MUSC may also be taken, with the approval of the Steering Committee.
LIST OF COURSES*

<table>
<thead>
<tr>
<th>CATEGORY A:</th>
<th>EDUCATIONAL RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDFS 635</td>
<td>EDUCATIONAL PSYCHOLOGY</td>
</tr>
<tr>
<td>EDFS 632*</td>
<td>NATURE OF SCIENCE, MATHEMATICS, AND SCIENCE/</td>
</tr>
<tr>
<td>EDFS 660*</td>
<td>MATHEMATICS EDUCATION</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY B1:</th>
<th>SCIENCE FOR THE ELEMENTARY SCHOOL TEACHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDEE 670</td>
<td>EARTH SCIENCE FOR TEACHER</td>
</tr>
<tr>
<td>SMFT(GEOL) 523*</td>
<td>SPACE SCIENCE FOR TEACHER</td>
</tr>
<tr>
<td>SMFT(GEOL/PHYS) 524*</td>
<td>INTRODUCTION TO BIOLOGICAL SCIENCE</td>
</tr>
<tr>
<td>SMFT(BIOL) 530*</td>
<td>TOPICS IN BOTANY FOR TEACHER</td>
</tr>
<tr>
<td>SMFT(BIOL) 537*</td>
<td>TOPICS IN ZOOLOGY FOR TEACHER</td>
</tr>
<tr>
<td>SMFT(BIOL) 538*</td>
<td>INTRODUCTION TO PROBLEM SOLVING</td>
</tr>
<tr>
<td>SMFT(MATH) 510*</td>
<td>APPLICATIONS OF CALCULUS</td>
</tr>
<tr>
<td>SMFT(MATH) 511*</td>
<td>INTRODUCTION TO PROBABILITY AND STATISTICS</td>
</tr>
<tr>
<td>SMFT(CHEM/PHYS) 548*</td>
<td>ATOMIC THEORY OF MATTER FROM LUCRETIUS TO QUARKS</td>
</tr>
<tr>
<td>SMFT (PHYS/CHM) 540*</td>
<td>FUNDAMENTALS OF PHYSICAL SCIENCE</td>
</tr>
<tr>
<td>SMFT (PHYS/CHM) 546*</td>
<td>PHYSICAL SCIENCE</td>
</tr>
<tr>
<td>SMFT (PHYS) 555*</td>
<td>TOPICS IN PHYSICS FOR TEACHER</td>
</tr>
<tr>
<td>SMFT (MATH) 516*</td>
<td>APPLICATIONS ACROSS THE MATHEMATICS CURRICULUM WITH TECHNOLOGY</td>
</tr>
<tr>
<td>SMFT (MATH/BIO/ CHEM/GEOL) 680*</td>
<td>SPECIAL TOPICS</td>
</tr>
<tr>
<td>EDUC 6XX</td>
<td>WOODROW WILSON INSTITUTES FOR TEACHERS OF SCIENCE AND MATHEMATICS (MATH, BIOLOGY, CHEMISTRY, PHYSICS) (Treated as a special topics course)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY B2:</th>
<th>MARINE AND COASTAL SCIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(K-8 options):</td>
<td>THE PHYSICS OF FORCE AND MOTION FOR TEACHERS</td>
</tr>
<tr>
<td>*<em>SMFT(BIOL/GEOL) 644</em></td>
<td>EARTH SYSTEMS SCIENCE</td>
</tr>
<tr>
<td>*<em>SMFT(PHYS) 645</em></td>
<td>SCIENCE. TECHNOLOGY. AND SOCIETY: ENVIRONMENTAL CONNECTIONS</td>
</tr>
<tr>
<td>GEOL 640</td>
<td>ENERGY PRODUCTION AND RESOURCE MANAGEMENT</td>
</tr>
<tr>
<td>EDFS 661*</td>
<td></td>
</tr>
<tr>
<td>EVSS 650</td>
<td></td>
</tr>
<tr>
<td>(8-12 options):</td>
<td></td>
</tr>
<tr>
<td>SMFT (BIOL) 637*</td>
<td>BIOTECHNOLOGY</td>
</tr>
<tr>
<td>SMFT (PHYS/CHM) 647*</td>
<td>SPECTROSCOPY: KEY TO MODELS OF ATOMS AND THE UNIVERSE</td>
</tr>
<tr>
<td>*<em>SMFT (BIOL/CHM/ GEOL) 665</em></td>
<td>SOCIETY AND STRESS ON THE ENVIRONMENT</td>
</tr>
<tr>
<td>SMFT (CHEM/PHYS/ GEOL) 667*</td>
<td>MATERIALS SCIENCE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CATEGORY C:</th>
<th>CAPSTONE SEMINAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMFT 701*</td>
<td>CURRICULUM, POLICY, AND SYSTEMS IN SCIENCE AND MATHEMATICS EDUCATION</td>
</tr>
<tr>
<td>EDFS 703*</td>
<td>THERESIS (based on a research experience, an internship experience, a project development experience, or another area approved by the Steering Committee)</td>
</tr>
</tbody>
</table>

Graduate courses in other sciences and mathematics degree programs as described above.

Note: Courses which are to be developed for the program are identified with a department acronym only, without a course number.

* Courses would be new.

** Course available for both K-12 and 8-12 options.
### TABLE 3
**COURSE SEQUENCE**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 1</th>
<th>Summer 2</th>
</tr>
</thead>
</table>
| 1    | (A) EDFS 635 | (A) EDFS 632
     | (B1) EDEE 670 | (B1) PHYS/CHEM 540
     | (B1) SMFT(CHEM/PHYS) 548 | (B1) SMFT(MATH) 510
     | Atomic Theory of matter from Lucretius to quarks | Introduction to problem solving
     | GEOL 640 | (B1) SMFT(BIOL) 537
     | Earth System Science (K-12) | Topics in botany for teachers
|      |        | (B2) EVSS 650 Energy Production and Resource Management | | (B1) Woodrow Wilson Institute
|      |        |                                                | (B1) SMFT(GEOL/PHYS) 523 or 524 Earth or space science for teachers |
| 2    | (A) EDEE 670 | (A) EDFS 632
     | (B1) EDFS 635 | (B1) PHYS/CHEM 546
     | (B1) SMFT(BIOL) 538 | Physical Science
     | (B1) SMFT(PHYS) 555 | SMFT(MATH) 518
     | Topics in zoology for teachers | Applications of calculus
     | (B1) SMFT(PHYS/CHEM) 647 | EVSS 650
     | Topics in Physics for Teachers | Energy Production and Resource Management
     | (B2) GEOL 640 | |
     | Earth System Science (K-12) | |
|      |        | (A) EDFS 635 | (A) SMFT(BIOL) 530
|      |        | (B1) SMFT(MATH) 516 | Intro. to Biological Science
|      |        | (B1) Applications across the mathematics curriculum | EDFS 661 Science, technology, and society: environmental connections
|      |        | (B2) SMFT(CHEM/PHYS/GEOL) 667 | Materials science (8-12)
<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 1</th>
<th>Summer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>(A)</td>
<td>EDFS 635</td>
<td>EDFS 632. Educational Psychology</td>
<td>(A) EDFS 635</td>
</tr>
<tr>
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<td>(A)</td>
<td>EDFS 660</td>
<td>SMFT(PHYS) 645</td>
<td>(B1) Woodrow Wilson Institute (K-8)</td>
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<tr>
<td></td>
<td>(B1)</td>
<td>Nature of Science, Math, and Science/Math Education</td>
<td>Physics of Force and Motion for Teachers (K-8)</td>
<td>(B2) SMFT(BIOL/GEOL) 644</td>
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<tr>
<td></td>
<td>(B2)</td>
<td>EDEE 670</td>
<td>EVSS 650 Energy Production and Resource Management</td>
<td>Marine and Coastal Science (K-12)</td>
</tr>
<tr>
<td></td>
<td>(B2)</td>
<td>GEOL 640</td>
<td>Earth Systems Science (K-12)</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 4
SAMPLE PLANS OF STUDY

#### Elementary School Teachers

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 1</th>
<th>Summer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EDEE 670 Science for the Elementary School Teacher</td>
<td>SMFT(PHYS/CHEM)540 Fundamentals of Physical Science</td>
<td>SMFT(MATH) 511 Introduction to probability and statistics</td>
<td>SMFT(GEOL/PHYS) 523 or 524 Earth or space science</td>
</tr>
<tr>
<td>2</td>
<td>EDFS 635 Educational Research</td>
<td>EDFS 632 Educational Psychology</td>
<td>EDFS 661 Science, Technology, and Society: Environmental Connections</td>
<td>CAPSTONE</td>
</tr>
<tr>
<td>3</td>
<td>EDFS 660 Nature of Science, Math, and Science/Math Education</td>
<td>SMFT(PHYS)645 The Physics of Force and Motion for Teachers</td>
<td>CAPSTONE</td>
<td>CAPSTONE</td>
</tr>
</tbody>
</table>

#### Middle School Teachers

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 1</th>
<th>Summer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EDFS 635 Educational Research</td>
<td>SMFT(MATH) 510 Introduction to Problem Solving</td>
<td>SMFT(MATH) 511 Introduction to Probability and Statistics</td>
<td>SMFT(GEOL/PHYS) 523 or 524 Earth or space science</td>
</tr>
<tr>
<td>2</td>
<td>SMFT(PHYS) 535 Topics in Physics for Teachers</td>
<td>EDFS 632 Educational Psychology</td>
<td>SMFT(CHEM/GEOL/PHYS) 667 Materials Science</td>
<td>CAPSTONE</td>
</tr>
<tr>
<td>3</td>
<td>EDFS 660 Nature of Science, Math, and Science/Math Education</td>
<td>CAPSTONE</td>
<td>SMFT(BIOL/CHEM/GEOL) 665 Society and Stress on the Environment</td>
<td>CAPSTONE</td>
</tr>
</tbody>
</table>

#### High School Teachers

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
<th>Summer 1</th>
<th>Summer 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SMFT(CHEM/PHYS) 548 Atomic Theory of Matter from Lucretius to Quarks</td>
<td>SMFT(BIOL) 537 Topics in Botany for Teachers</td>
<td>EDFS 635 Educational Research</td>
<td>EDUC(MATH/BIOL/CHEM/PHYS) 6XX Woodrow Wilson Institute</td>
</tr>
<tr>
<td>2</td>
<td>EDFS 632 Educational Psychology</td>
<td>SMFT(CHEM/GEOL/PHYS) 667 Materials Science</td>
<td>SMFT(MATH) 516 Applications Across the Mathematics Curriculum with Technology</td>
<td>CAPSTONE</td>
</tr>
<tr>
<td>3</td>
<td>EDFS 660 Nature of Science, Math, and Science/Math Education</td>
<td>EVSS 650 Energy Production and Resource Management</td>
<td>CAPSTONE</td>
<td>CAPSTONE</td>
</tr>
</tbody>
</table>

**Note:**
(1) Category C courses in research of internship may be taken during any of the semesters near the end of the student's program.
(2) Courses which are to be developed for the program are identified with a department acronym only, without a course number.
CATEGORY A: FUNDAMENTAL EDUCATION CURRICULUM (9 HOURS)

EDFS 635  EDUCATIONAL RESEARCH (3)
An in-depth study of methods used in different types of educational research. Includes involvement of the student in the process of educational research design, implementation, reporting, and evaluation.

EDFS 632  EDUCATIONAL PSYCHOLOGY (3)
This course incorporates current research, knowledge, and concepts in which both teachers and prospective teachers can base informed decisions that positively affect student attitudes and achievement. Major course topics include quantitative and qualitative methods for classroom observation and research, strategies for dealing with student diversity, social-constructivist learning and instructional issues, concepts and strategies with which to address complex classroom behaviors and interactions, and strategies for developing, reflecting on, and refining teaching style.

EDFS 660  NATURE OF SCIENCE, MATHEMATICS, AND (3)
SCIENCE/MATHEMATICS EDUCATION
Topics include the historical development of science and mathematics and the variety of philosophies in science/mathematics education. Other topics include social trends affecting science education in the United States since 1900, including reform movements of 1904, 1937, 1945, 1960, and the present; and local frameworks addressing national and global concerns.

CATEGORY B1: FUNDAMENTAL SCIENCE AND MATHEMATICS CURRICULUM
(at least 14 hours)

EDEE 670  ELEMENTARY SCIENCE INSTRUCTION (3)
A course for elementary teachers who have at least partial responsibility for science teaching. It focuses on comprehension and application of integrated science process skills using concepts from life, earth, and physical science to teach them.

SMFT(GEOL)523
EARTH SCIENCE FOR TEACHERS (4)
This course examines the physical nature of the earth, its oceans, and atmosphere. Teachers will examine the geological processes affecting the surface of the earth and the interaction of earth's dynamic hydrosphere and atmosphere. Throughout the course, teachers will acquire conceptual knowledge of these processes with the expectation of learning and developing classroom activities appropriate for primary and middle school students. Where appropriate, teachers will use computer-downloaded real-time satellite images and space shuttle photographs to develop activities.
SMFT(GEOL/PHYS) 524
SPACE SCIENCE FOR TEACHERS (4)
This course will consist of two components: planetary science and astronomy. Teachers will learn the physical properties of the Solar System and the geological characteristics of the planets and moons within the context of the origin of the Solar System. Astronomy will be used to develop an understanding of stellar evolution and composition of the cosmos. Teachers will use acquired conceptual knowledge to develop classroom activities appropriate for primary and middle school students. An emphasis will be placed on acquisition, via remote sensing, of data and images downloaded from NASA centers.

SMFT(BIOL) 530
INTRODUCTION TO BIOLOGICAL SCIENCE (4)
This course provides an introduction to ecosystems and to some of the various plant and animal species that belong to them with emphasis on local species and habitats. Fundamental concepts of genetics and evolution will be introduced through appropriate model organisms. The course will address basic anatomy and physiology of animals and plants and give an introduction to model plant systems that are appropriate for the classroom. Throughout the course teachers will acquire conceptual knowledge of biology with the expectation of developing classroom activities primarily appropriate for elementary students.

SMFT(BIOL) 537
TOPICS IN BOTANY FOR TEACHERS (4)
This more advanced course introduces plant taxonomy with emphasis on South Carolina species and their habitats. The course further investigates anatomy and physiology of plants. Appropriate model plant systems will be used to introduce plant physiology, genetics, and development. Plant tissue culture will be introduced.
Prerequisite: One year of teaching biology, and one year of college biology.

SMFT(BIOL) 538
TOPICS IN ZOOLOGY FOR TEACHERS (4)
This course will provide an introduction to animal diversity with emphasis on South Carolina species and their habitats. It will address the anatomy and physiology of animals. The fundamental concepts of genetics and evolution will be introduced through appropriate model organisms.
Prerequisite: One year of teaching biology and one year of college biology.

SMFT(MATH) 510
INTRODUCTION TO PROBLEM SOLVING (3)
A course designed primarily for elementary and middle-level teachers to investigate school mathematics topics through problem solving activities. Topics covered will include numeric and algebraic concepts and operations; patterns, relationships, and functions; geometry and spatial sense; and
measurement. The NCTM standards, NCTM Addenda Series, and the South Carolina Mathematics Curriculum Frameworks will serve as a basis for the nature and content of activities. AIMS activities will also be included so that teachers may investigate the ways to integrate mathematics and science in the classroom.

**SMFT(MATH) 518**

APPLICATIONS OF CALCULUS (3)
Applications of calculus appropriate to the natural sciences. This course will present a wide range of practical problems in differential and integral calculus, suitable for incorporation in either calculus or science courses. The course includes presentation pedagogy and may also include exposure to graphing calculators and computerized symbolic mathematics programs. **Prerequisite:** One semester of calculus or permission of the instructor.

**SMFT(MATH) 511**

INTRODUCTION TO PROBABILITY AND STATISTICS (3)
This course is designed primarily for the elementary and middle-level teachers. The course will examine methods of statistical measurement and their uses and misuses in interpreting and describing data. The course also addresses variation, the underlying framework and application of basic probability distributions, and inductive reasoning through probability.

**SMFT(CHEM/PHYS) 548 (4)**

ATOMIC THEORY OF MATTER FROM LUCRETIUS TO QUARKS
This course looks at milestones in the development of atomic theory as a means to understand the basic concepts of modern atomic theory and as an example of the dynamic nature of model building in science. The experimentation that led to the proposal of a particulate nature of matter, to the concept of energy states for atoms, and the discovery of elementary materials will be discussed and repeated where possible. Modern methods for analysis of the nature of matter will be addressed. The nature of the nucleus and nuclear changes will be included. **Prerequisite:** One year of teaching high school chemistry, physics, or physical science; one year of college chemistry or physics.

**SMFT (PHYS/CHEM) 540**

FUNDAMENTALS OF PHYSICAL SCIENCE (4)
The course will explore the creative nature of science, build observational and descriptive skills, discover laws of chemistry and physics, familiarize and use the tools of science (from meter sticks to computers). A significant component of the course will be the development of instructional, hands-on activities for students appropriate for the K-8 classroom. General topics will include: measurement, estimation, heat, light, sound, electricity, magnetism, and gravity. Chemistry topics will include the nature of elements, compounds, and mixtures; chemical and physical properties of matter;
chemical reactions from a matter and energy perspective; and applications of chemistry.

SMFT (PHYS/CHEM) 546
PHYSICAL SCIENCE (4)
Philosophically similar to, but more advanced than PHYS/CHEM 540. A significant component of the course will be the development of instructional, hands-on activities for students that are appropriate for high school level physical science classrooms. Scientific concepts will be further developed and applied to phenomena and modern technology that affect our lives. Topics such as superconductors, nuclear physics, lasers, rainbows, blue sky, microwave ovens, environmental health, remote controls, the development of new material for space-age living, and the chemistry of living systems will be used as vehicles to develop physics and chemistry concepts and to, hopefully, entice students to explore the physical sciences further in their choices of high school course.

Prerequisite: Fundamentals of Physical Science, one year of college physics, or one year of teaching physical science.

SMFT (MATH) 516
APPLICATIONS ACROSS THE MATHEMATICS CURRICULUM WITH TECHNOLOGY (3)
This course will investigate the connections among various mathematical topics and their applications. Emphasis will be placed on modeling real world phenomena. The use of geometric models, trigonometry, and probability and statistics to represent problem situations will be developed. Other topics will include network theory, matrices, and linear programming. This course will explore a variety of uses of technology to aid student investigation, conjecturing, verifying, and applying mathematics. Throughout the course teachers will develop activities appropriate for middle and secondary level classes.

SMFT (MATH, BIOL, CHEM, GEOL, OR PHYS) 680
SPECIAL TOPICS (3)
A semester course on a topic in one or more of the sciences and/or mathematics.

SMFT (PHYS) 555
TOPICS IN PHYSICS FOR TEACHERS (4)
An examination of an area of physics of special interest to teachers. Possible topics include: optics (including lasers), computer modeling in physics. The course will ordinarily be a combination of lecture, demonstration, and laboratory exercises, including the development of suitable experiences for the pre-college classroom.

Prerequisite: permission of the instructor.
EDUC(MATH/BIOL/CHEM/PHYS) 6XX
WOODROW WILSON INSTITUTES FOR TEACHERS OF SCIENCE AND MATHEMATICS (3)
These institutes are available in biology, chemistry, physics, secondary mathematics, physical science, and middle school mathematics. The institutes are designed to update content knowledge of teachers, introduce them to the latest laboratories, demonstrations, and computer software available on the topic of the institute, and allow each teacher to experience the new labs. The institutes are conducted by teams of the most outstanding middle and high school science teachers in the USA. The institutes are also designed to encourage participating teachers to become involved in local, state, and national professional activities and associations.

CATEGORY B2 INTEGRATED COURSES (APPLICATIONS OF SCIENCE) (6 HOURS).

(K-8 Options)
SMFT(BIOL/GEOL) 644
MARINE AND COASTAL SCIENCE (3)
This course investigates the Earth's major ocean basins and adjacent coastlines. Course topics will include the physical and chemical properties of oceans, marine ecology, coastal wetlands, barrier islands, and the impact of coastal development and human activities on the seashore. Applications of topics will be used to develop classroom activities dealing with the South Carolina wetlands and shoreline.

SMFT(PHYS) 645
THE PHYSICS OF FORCE AND MOTION FOR TEACHERS (3)
A course which ties principles of force and motion to the everyday world. Newton's laws of motion will be used in conjunction with the fundamental forces of electricity and gravity to develop the understanding of motion of things in the world around us. Waterfalls, weather systems, waves, plate tectonics, friction, and other applications of the laws of nature that relate directly to motion will be studied. Teaching and presentation techniques suitable for the pre-college classroom will be a significant aspect of the course.

GEOL 640
EARTH SYSTEMS SCIENCE (3)
The Earth Systems Science course investigates the interactions among the atmosphere, ocean, ice, solid-Earth, and biological systems. In this course, students will study the evolution of solid-Earth, the formation of the atmosphere and oceans, and the origin of life. Rate and scale of changes of the Earth's environment will be examined through an analysis of changing climates. Finally, the course examines human evolution and technological development to gain an understanding of our impacts on the global environment.
EVSS 650  ENERGY PRODUCTION AND RESOURCE MANAGEMENT (3)
A study of the nature of energy and scientific issues relating to its production, storage, distribution, and use from a physics perspective. Production methods to be studied include: hydroelectric, fossil fuel, fission, fusion, wind, photovoltaic, bio-mass, and solar-dynamics. Scientific issues will be related to the cultural and philosophical framework surrounding energy infrastructure and policy.

EDFS 661  SCIENCE, TECHNOLOGY, AND SOCIETY: ENVIRONMENTAL CONNECTIONS (3)
This course explores an environmental problem, the various physical, biological, and social factors that have an impact on the problem, and potential approaches to ameliorate the problem.

(8-12 options)
SMFT(BIOL)637  BIOTECHNOLOGY (4)
This course will cover approaches and techniques that are used in Biotechnology. The structure of proteins and DNA will be reviewed, and the importance of these molecules in biotechnology will be discussed. Techniques to be described in the course include gel electrophoresis, Western blotting, immunolocalization, and basic cloning techniques. Where applicable, computer programs will be used to enhance the learning of the techniques and principles. Applications of the techniques, such as gene mapping and gene therapy, will be discussed along with ethics issues raised by their use.

SMFT(PHYS/CHEM) 647
SPECTROSCOPY: KEY TO MODELS OF ATOMS AND THE UNIVERSE (4)
This course investigates the discovery and development of spectroscopy as a major tool for studying the nature of matter. Its application to the study of modern atomic theory and modern astronomy will be explored. Laboratory work will include exercises in the use of this technique in modern analytical investigations.

SMFT(BIOL/CHEM/GEOL) 665
SOCIETY AND STRESS ON THE ENVIRONMENT (4)
This course examines problems and potential future problems with the environment. Also treated are methods of analysis, possible solutions, and ethics issues in maintaining a balanced environment.
SMFT(CHEM/PHYS/GEOL) 667
MATERIALS SCIENCE (4)
This course is an inter-disciplinary approach to the study of the nature of
matter and the relationship between the fundamental structure of materials
and the consequential function and behavior of those materials. Course
topics include basic atomic theory; bonding theory for ionic compounds,
molecular compounds and network solids; and physical and chemical
properties as a function of structure. Materials emphasizing everyday, real-
world properties will be used in hands-on classroom experiences and
laboratories.

CATEGORY C: (K-12) CAPSTONE EXPERIENCES (at least 6 hours)

SMFT 701  CAPSTONE SEMINAR (3)
This course will provide students with an opportunity to present the results of
research on an assigned topic of scientific and/or mathematical interest.
Groups of students from two or more disciplines will work together as teams
during the first part of the course to conduct research and apply knowledge
learned through previous course work. Results will be presented to
classmates as multidisciplinary oral reports involving all team members. A
written report summarizing the project will also be required.

EDFS 703  CURRICULUM, POLICY, AND SYSTEMS IN SCIENCE AND
MATHEMATICS EDUCATION (3)
This course is designed to examine possible solutions to current problems in
curriculum and policy within school systems in South Carolina. The course
is designed to increase organizational and interpersonal skills that empower
teachers to alter school climates and garner technical support while designing
and implementing K-12 programs of excellence.

[SMFT 700  THESIS (based on a research experience, an internship experience, a project
development experience, or another area approved by the Steering
Committee.) (Variable)]

[Signature]
Entrance Requirements

To apply for admission to the degree program, one must submit official transcripts of all undergraduate and graduate credit, including documentation of graduation from an accredited four year college or university, and letters of recommendation from two former professors or immediate superiors in recent employment. The steering committee will evaluate applications and approve candidates for admission.

To be admitted to the degree program, one will be required to have a bachelor's or equivalent with a GPA of 2.50 or better, both overall and in the major, and be a teacher. Certified secondary teachers whose certification is in an area other than mathematics or a science may apply for admission to this program. Their application will be evaluated considering the current College requirements for degrees in secondary education. They will be required to have a bachelor's degree in a science or in mathematics or to show evidence of pre- or post-graduate science and mathematics college work consistent with a bachelor's degree in a science or mathematics discipline.

This program is intended for certified elementary, middle, or secondary level teachers. It is possible to be admitted without certification. Exceptions will be considered on a case-by-case basis by the steering committee.

Transfer Credit

Up to 9 hours of graduate course work from other accredited institutions may be transferred and applied to the degree. The Steering Committee will render decisions when students petition to be allowed to receive transfer credit. In making each decision, the Steering Committee shall consider course content, teaching methods, and technology within the course, and whether the course is consistent with one of the program's curriculum categories.

Science courses state the grouping for which they are designed. The courses reflect elementary, middle, and secondary focus without penalizing a person for having existing knowledge in both the sciences and education. The education courses are designed to illuminate a K-12 scope that is typically missing in programs.

Any course under consideration for acceptability in this program will be evaluated taking into consideration the special needs, abilities, and experience of the student petitioning for the course's approval. We are not giving carte blanche to participants for courses taken elsewhere. The course must be consistent with the program's and participant's goals. Any course taken at another local institution for this program must be approved as a category A, B, or C course, consistent with the philosophy of the category in which it will be applied. There is a strict limit of nine hours as the maximum number of outside, content-oriented course hours which may be applied to this program. Furthermore, such courses will be limited almost exclusively to
category C credit. We do not believe that taking one graduate level course that is heavily content oriented (rather than containing a significant pedagogical component) will negate the efficacy of the remainder of our program. One of our explicit goals is to enhance the content skills of our participants.

**FACULTY**

The University of Charleston’s faculty has the broad base of content and pedagogical expertise necessary for the development and execution of the proposed degree program. The combined faculties of the School of Sciences & Mathematics and the School of Education have a record of vigorous involvement with K-12 students and teachers. Faculty experiences include teaching elementary, middle and high school science and mathematics, intense involvement with the Governor’s School and with in-service programs for teachers such as the Woodrow Wilson Summer Institutes; teaching science and mathematics courses for K-12 teachers; and participation in the National Science Teachers Association. The science and mathematics faculty are involved in state and national levels of the education arms of the national organizations of their academic disciplines -- mathematics, chemistry, biology, geology, and physics. Faculty have given literally hundreds of programs, presentations and demonstrations for K-12 students. School of Education faculty experience includes involvement with science teaching organizations such as the American Educators of Teachers in Science, development and implementation of science teacher education, and grant projects such as after school science enrichment programs. The participation of Citadel faculty gives additional strength to the program.

Undergraduate programs in the sciences at the College of Charleston are among the strongest and most popular with students. More than 10% of the undergraduate student body are science majors. Faculty in the sciences have a history of maintaining active research programs and strongly supporting undergraduate research. They also have a record of being actively involved with the schools through the Math Meet, Science Fair, Woodrow Wilson Institutes for Science and Math Teachers, etc. About 12% of the undergraduate students are elementary education majors. Faculty in education are very active in the public schools, and with state and national education research organizations. The combination of percentage of the undergraduate student body interested in science and education and the background of the science and education faculty strongly supports the formation of a Master of Education in Science and Mathematics degree program.

The following table identifies existing University of Charleston science, mathematics, and education faculty who have indicated their desire to be involved as graduate faculty in the proposed program.
<table>
<thead>
<tr>
<th>List Staff by Rank, Name of Conferring Institution, Year Degree Earned, Field of Study, Teaching in Field (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christopher Abate, Ph.D., The Pennsylvania State University, 1993, Hydrogeology and Ground Water Modeling, Yes</td>
</tr>
<tr>
<td>Gary Asleson, Ph.D., University of Iowa, 1975, Analytical Chemistry, Yes</td>
</tr>
<tr>
<td>Louis Burnett, Ph.D., University of South Carolina, 1977, Marine Science, Yes</td>
</tr>
<tr>
<td>Mitch Colgan, Ph.D., University of California at Santa Cruz, 1990, Climatology, Environmental Issues, Reef Ecology, and Remote Sensing, Yes</td>
</tr>
<tr>
<td>Cassandra Coombs, Ph.D., University of Hawaii, 1989, Remote Sensing and Planetary Geology, Yes</td>
</tr>
<tr>
<td>Sara Davis, Ph.D., University of South Carolina, 1992, Education Resources and Measurement, Yes</td>
</tr>
<tr>
<td>James Deavor, Ph.D., University of South Carolina, 1983, Analytical Chemistry, Yes</td>
</tr>
<tr>
<td>Henry Donato, Ph.D., University of Virginia, 1973, Biophysical Chemistry, Yes</td>
</tr>
<tr>
<td>Bob Dukes, Ph.D., University of Arizona, 1973, Astronomy, Yes</td>
</tr>
<tr>
<td>Phil Dustan, Ph.D., State University of New York at Stony Brook, 1975, Biological Sciences, Yes</td>
</tr>
<tr>
<td>Hope Florence, M.A., University of South Carolina, 1972, Mathematics, Yes</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>Kem Fronabarger, Assistant Professor</td>
</tr>
<tr>
<td>William Golightly, Associate Professor</td>
</tr>
<tr>
<td>Gary Harrison, Professor</td>
</tr>
<tr>
<td>Hugh Haynsworth, Associate Professor</td>
</tr>
<tr>
<td>Denis Keyes, Assistant Professor</td>
</tr>
<tr>
<td>Bill Kubinec, Associate Professor</td>
</tr>
<tr>
<td>Lee Lindner, Assistant Professor</td>
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<tr>
<td>Elizabeth Martin, Assistant Professor</td>
</tr>
<tr>
<td>Shannon Martinez, Assistant Professor</td>
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<tr>
<td>Robert Mignone, Professor</td>
</tr>
<tr>
<td>Laney Mills, Associate Professor</td>
</tr>
<tr>
<td>Martha Nabors, Associate Professor</td>
</tr>
<tr>
<td>Harold Nations Associate Professor</td>
</tr>
<tr>
<td>Robert Norton, Professor</td>
</tr>
<tr>
<td>Name</td>
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<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Robert Nusbaum, Ph.D.</td>
</tr>
<tr>
<td>Susan Prazak, M.A.</td>
</tr>
<tr>
<td>Terry Richardson, M.S.</td>
</tr>
<tr>
<td>Leslie Sautter, Ph.D.</td>
</tr>
<tr>
<td>Mike Skinner, Ph.D.</td>
</tr>
<tr>
<td>Steve Stearns, Ph.D.</td>
</tr>
<tr>
<td>Meta Van Sickle, Ph.D.</td>
</tr>
<tr>
<td>Fred Watts, Ph.D.</td>
</tr>
<tr>
<td>Frances Welch, Ph.D.</td>
</tr>
<tr>
<td>Sara White, Ph.D.</td>
</tr>
<tr>
<td>Reid Wiseman, Ph.D.</td>
</tr>
<tr>
<td>Jeff Wragg, Ph.D.</td>
</tr>
</tbody>
</table>
Faculty Needed By Year and Term

Table 6 shows estimates of faculty needs based on IFTE, which is defined as 12 teaching hours per semester or 24 teaching hours per academic year. Science Department Courses are 4 semester hour courses which include a lab. Mathematics and Education Department Courses are 3 hour courses. The line estimating IFTE needed to direct capstone experiences is justified in Table 7.

### TABLE 6
ADDITIONAL DEPARTMENTAL FACULTY NEEDS FOR FALL AND SPRING SEMESTERS

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
<th>YEAR 4</th>
<th>YEAR 5</th>
<th>YEAR 6</th>
<th>YEAR 7</th>
<th>Anticipated NEW LINE</th>
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<tr>
<td>IFTE/COURSE</td>
<td>1.5/2</td>
<td>2.25/1.5</td>
<td>.5/1</td>
<td>1.5/2</td>
<td>2.25/1.5</td>
<td>.5/1</td>
<td>1.5/2</td>
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<tr>
<td>TOTAL</td>
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<td>1.875</td>
<td>.75</td>
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<td>1.875</td>
<td>.75</td>
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<tr>
<td>IFTE Directing Capstone Experiences</td>
<td>0</td>
<td>0</td>
<td>.75</td>
<td>1.188</td>
<td>1.563</td>
<td>1.563</td>
<td>1.563</td>
<td></td>
</tr>
<tr>
<td>IFTE TOTAL</td>
<td>1.75</td>
<td>1.875</td>
<td>1.50</td>
<td>2.938</td>
<td>3.438</td>
<td>2.313</td>
<td>3.313</td>
<td></td>
</tr>
</tbody>
</table>

* Some existing courses already offered.

** New section of EDFS 635 would be needed.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated No. of Students in Program = Estimated Credit Hours + 3.6*</td>
<td>25</td>
<td>37.5</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Estimated No. of Students Taking Directed Capstone Experiences (0.5x no. of students two years earlier)</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>19</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>IFTE (previous row - 16)</td>
<td>0</td>
<td>0</td>
<td>.75</td>
<td>1.188</td>
<td>1.563</td>
<td>1.563</td>
<td>1.563</td>
</tr>
</tbody>
</table>

* Typically, education and mathematics courses are 3 credit hours each and science courses 4 credit hours each.
**TABLE 8**

**A) ADDITIONAL FACULTY NEEDS FOR SUMMER COURSE INTEGRATED CLASSES**

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOLOGY</strong></td>
<td>1/0</td>
<td>0/0</td>
<td>1/1</td>
</tr>
<tr>
<td>Summer I/II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td>0/.5</td>
<td>1/0</td>
<td>0/0</td>
</tr>
<tr>
<td><strong>CHEMISTRY</strong></td>
<td>0/0</td>
<td>1/0</td>
<td>1/0</td>
</tr>
<tr>
<td><strong>GEOLOGY</strong></td>
<td>0/1</td>
<td>1/0</td>
<td>1/1</td>
</tr>
</tbody>
</table>

**B) SUMMER COURSE NON-INTEGRATED**

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOLOGY</strong></td>
<td>1/0</td>
<td>1/0</td>
<td>0/0</td>
</tr>
<tr>
<td>Summer I/II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
</tr>
<tr>
<td><strong>CHEMISTRY</strong></td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
</tr>
<tr>
<td><strong>GEOLOGY</strong></td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
</tr>
<tr>
<td><strong>MATHEMATICS</strong></td>
<td>1/0</td>
<td>0/1</td>
<td>0/0</td>
</tr>
</tbody>
</table>

**C) COURSES SUPPORTED THROUGH WOODROW WILSON AND COLLEGE OF CHARLESTON FUNDS *****

<table>
<thead>
<tr>
<th></th>
<th>YEAR 1</th>
<th>YEAR 2</th>
<th>YEAR 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOLOGY</strong></td>
<td>0/1</td>
<td>0/1</td>
<td>0/1</td>
</tr>
<tr>
<td>Summer I/II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CHEMISTRY</strong></td>
<td>0/1.5</td>
<td>0/1.5</td>
<td>0/1.5</td>
</tr>
<tr>
<td><strong>PHYSICS</strong></td>
<td>0/1.5</td>
<td>0/1.5</td>
<td>0/1.5</td>
</tr>
<tr>
<td><strong>MATHEMATICS</strong></td>
<td>0/2</td>
<td>0/2</td>
<td>0/2</td>
</tr>
</tbody>
</table>

*** subject to continued funding - Summer courses must be self supporting
Because the proposed program involves five departments in the School of Sciences and Mathematics and two in the School of Education and is interdisciplinary, the additional staffing needs within any one department are modest. Departments have five year plans in which the proposed program’s new staffing needs have been included. Any new hires would meet the overall needs of the department. Hence each department may staff courses with existing faculty from the above list or with a new hire recruited with the program in mind. Hiring decisions are in the domain of the department.

**PHYSICAL PLANT AND EQUIPMENT**

This program will accommodate graduate students, most of whom are practicing teachers, in a science and math education program that is without equal in the United States in terms of exposure of the students to hands-on, pedagogically aimed science and mathematics classes. This strength requires resources: faculty, space, and equipment.

Some of the space needs can be met by existing facilities. To the extent possible, classroom lecture space will be accommodated by virtue of the late afternoon and early evening offerings in this program. This time of day traditionally places less demand on classroom space. Two additional lecture/lab rooms will be needed to meet the needs of mathematics, biology, chemistry, physics, and geology. These rooms will permit convenient access to lecture-demo and other discipline-specific equipment.

Every aspect of academia has been profoundly affected by information technology. Each course developed in this program will have a computer component. This will require varying degrees of access to computers for each course. Some computer work can be done, or introduced, in the regular lecture rooms by using portable or built-in single-station computers. Some work can also be accomplished using existing small computer facilities in some departments (particularly Physics), and in the Institution’s computing labs. The necessity to use a combination of discipline-specific software and education software will ultimately only be served by a 30-station computer classroom; the scheduling of which is to be coordinated among the faculty in this program. This facility will be scheduled for formal classroom work and also have open hours.

The new faculty (6) will be regular faculty in mathematics, science, and education departments. Offices and additional research space will be needed. Both are already at a premium in all departments.

Graduate students will also require space: a study/resources room with learning resource materials, and TA office space (2 TA’s per office).

In light of the fiscal constraints which classroom teachers face, it is imperative that teachers know how to make their own teaching equipment (e.g., gel electrophoresis apparati,
light boxes, kaleidoscopes). A shoproom will be needed. This is a room where a technician will build apparatus for courses and where teachers in the program can learn to make their own apparatus for use in their classrooms.

<table>
<thead>
<tr>
<th>Room Type</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture/lab rooms</td>
<td>2</td>
</tr>
<tr>
<td>Computer classroom</td>
<td></td>
</tr>
<tr>
<td>(30 stations)</td>
<td>1</td>
</tr>
<tr>
<td>Faculty offices</td>
<td>6</td>
</tr>
<tr>
<td>Faculty research space</td>
<td></td>
</tr>
<tr>
<td>TA offices</td>
<td></td>
</tr>
<tr>
<td>In years 1 and 2</td>
<td>1</td>
</tr>
<tr>
<td>Total in years 3 and 4</td>
<td>2</td>
</tr>
<tr>
<td>Total beginning in year 5</td>
<td>3</td>
</tr>
<tr>
<td>Study/resources room</td>
<td>1</td>
</tr>
<tr>
<td>Shoproom</td>
<td>1</td>
</tr>
</tbody>
</table>

**LIBRARY RESOURCES**

The Robert Scott Small Library at the College of Charleston more than meets the ACRL standards for the overall collection. In June of 1994, it had 427,013 book volumes plus bound serials, while the recommended standard is 289,735 for a college its size. The library acquires 15,000 to 17,000 new volumes each year. The computerized card catalog, on-line database search services, Internet and the Information Access Corporation Expanded Academic Index database, interlibrary loan, and readily available reference librarians provide excellent services to the user.
As of June 1994, the book holdings in participating departments were

<table>
<thead>
<tr>
<th>Department</th>
<th>Call Numbers</th>
<th>Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>QH-QR</td>
<td>15,957</td>
</tr>
<tr>
<td>Chemistry</td>
<td>QD</td>
<td>2,896</td>
</tr>
<tr>
<td>Education</td>
<td>L</td>
<td>13,144</td>
</tr>
<tr>
<td>Geology</td>
<td>QE</td>
<td>5,661</td>
</tr>
<tr>
<td>Mathematics</td>
<td>QA</td>
<td>5,327</td>
</tr>
<tr>
<td>Physics</td>
<td>QB-QC</td>
<td>3,843</td>
</tr>
</tbody>
</table>

which gives total of 46,828. Additional volumes in the sciences, mathematics, and education are available at libraries at The Citadel, MUSC, and Charleston Southern University. The ACRL standard suggests about 6000 volumes for a masters program of any kind.

Journal subscriptions at the University of Charleston Library are as follows for departments participating in the program:

<table>
<thead>
<tr>
<th>Departments</th>
<th>Number of Subscriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>242</td>
</tr>
<tr>
<td>Chemistry</td>
<td>30</td>
</tr>
<tr>
<td>Education</td>
<td>223</td>
</tr>
<tr>
<td>Geology</td>
<td>67</td>
</tr>
<tr>
<td>Mathematics</td>
<td>65</td>
</tr>
<tr>
<td>Physics</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>668</td>
</tr>
</tbody>
</table>

Other journals are housed in libraries at The Citadel, MUSC, the Biostatistics and Epidemiology Department at MUSC, and Charleston Southern University. The interlibrary loan service makes it easy to obtain copies of journal articles from other libraries, both locally and nationwide.

The University of Charleston Library currently spends about $88,000 for books and $161,000 for journals annually for these departments. The collection is more than adequate to
begin the master’s program. An additional $6000 annually is budgeted for new acquisitions in order to strengthen the holdings.

ACCREDITATION, APPROVAL, LICENSURE, OR CERTIFICATION

Upon approval at the University level and through the Commission on Higher Education, this degree program will be incorporated into the School of Education’s total program, and, as such, submitted for NCATE (National Council for Accreditation of Teacher Education) approval.

ESTIMATED ADDITIONAL COST

Faculty salary is the dominant item in the budget. Since course offerings have a 3-year cycle and IFTE varies from year to year, once the program has phased in, budgets will have a 3-year cycle, beginning with the fifth year.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Salaries</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Co-Directors (No., Headcount)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>(No., IFTE)</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
<td>.25</td>
</tr>
<tr>
<td>1/4 of $40,000</td>
<td>$10,000*</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>b) Co-Directors Summer Stipends</td>
<td>$3000</td>
<td>$3000</td>
<td>$3000</td>
<td>$3000</td>
<td>$3000</td>
<td>$3000</td>
<td>$3000</td>
</tr>
<tr>
<td>Additional Faculty (No., Headcount)</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>IFTE (previous table) - IFTE times $35,000</td>
<td>$61,250</td>
<td>$65,625</td>
<td>$52,500</td>
<td>$102,830</td>
<td>$120,330</td>
<td>$80,955</td>
<td>$115,955</td>
</tr>
<tr>
<td>c) Graduate Assistants (Number) Cost</td>
<td>$14,200</td>
<td>$14,200</td>
<td>$28,400</td>
<td>$28,400</td>
<td>$42,600</td>
<td>$42,600</td>
<td>$42,600</td>
</tr>
<tr>
<td>d) Half-time Technician</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>e) Fringe Benefits</td>
<td>$17,016</td>
<td>$18,154</td>
<td>$14,812</td>
<td>$27,898</td>
<td>$32,519</td>
<td>$22,281</td>
<td>$31,381</td>
</tr>
<tr>
<td>Travel/Supplies/Phone at $1200 per IFTE</td>
<td>$2,100</td>
<td>$2,250</td>
<td>$1,800</td>
<td>$3,526</td>
<td>$4,126</td>
<td>$2,776</td>
<td>$3,976</td>
</tr>
<tr>
<td>f) Computer/Networking</td>
<td>$6,125</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>g) Science/Math Course Equipment &amp; Supplies</td>
<td>$20,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
<td>$10,000</td>
</tr>
<tr>
<td>Research Start-Up Funds For New Science Faculty =1.25 science faculty in year 1 times $20,000</td>
<td>$25,000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Furniture - IFTE X $1,000</td>
<td>$1,750</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Advertising</td>
<td>$2,000</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Software</td>
<td>$6,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>Library</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$185,441</td>
<td>$144,229</td>
<td>$141,512</td>
<td>$206,654</td>
<td>$243,575</td>
<td>$192,612</td>
<td>$237,912</td>
</tr>
</tbody>
</table>

*This assumes that regular faculty and not adjuncts are used to teach courses that the co-directors would have taught.

a) This program involves a one-course per semester reduction shared by directors.
b) The $3000 is to be shared by the co-directors for performing program summer duties.
c) Graduate students will perform duties for faculty in the program.
d) The technician will prepare hands-on materials and maintain computer software.
e) 26% of IFTE faculty plus 8.5% of technician salary plus .5% of graduate assistant salary.
f) $3500 x IFTE
g) Cutting edge, age appropriate, hands-on materials.
GRADUATE STUDENT CANDIDATES FOR GRADUATION - SPRING, 1996
(March 22, 1996)

NAME (FOR DIPLOMA)

MASTER OF SCIENCE - ACCOUNTANCY

John E. Copeland, Jr.
David Matthew Kuczkir

M.A.T. - Early Childhood Education

Teresa Davis New
Sara Laine Pittman
Linda Fleming Stout

M.A.T. - ELEMENTARY EDUCATION

J. Michael Cipolla
Jennifer Lynn Gaeto
Anthony S. Galasso
Darcy S. Graham
Lisa Cameron Hickey
Kevin Michael Kurtz
Alan Moore Litz
Kimberly Lynn Lovett
Harold Wayne Reynolds Jr.
Kathleen Shroka Wilson

M.A.T. - SPECIAL EDUCATION

A. Michael Anderson
Catherine Michelle Dixon Beasenburg
Roberta Maye Guthrie
Brenda Sue Mackaness
Thomas Matthew Wolpert
M.ED. - EARLY CHILDHOOD EDUCATION

Shawn Fraser Blunt
Robin Sydell Hilts
Gayla Lee Moseley
Kimberly B. Schulken
April Crawford Smith

M.ED. - ELEMENTARY EDUCATION

Georgia Ann Cannon
Charlotte Suzanne Lemon
Lori Renae Phillips
Michele Amanda Walsh

M.ED. - SPECIAL EDUCATION

Akram Mahmoud Al-Qais
Ashleigh Collins Baker
Susan Kretzschmar Buckley
Helen Marie James
Michelle McLendon Long

MASTER OF ARTS - ENGLISH

Miriam Leigh Tomblin

MASTER OF ARTS - HISTORY

Steven Thomas Gyorffy
James Vance Miles
Peter Andrew Rerig
Brana Jane Snowden
Page 3 - May, 1996 Commencement List

MASTER OF PUBLIC ADMINISTRATION

Roland Allocleto Cruickshank
Jan Lauren Lindley
Kelly Lynn McNamara
Melissa Hutson Moise
Joan Lee Rennhack
Steven Edwin Thomas
Maria Y. Williams

MASTER OF SCIENCE - MARINE BIOLOGY

Sandra E. Brick
Scott Bedford Lerberg
Katherine Marsh
Paul Legare Pennington
Duane E. Stevenson
Christine Marie Walton

MASTER OF SCIENCE - MATHEMATICS

Louis J. Attanasi
Terry Lynn Moss
Juliet Feitel Rieth

As of March 22, 1996 - Aaron
1. Department: Biology

2. Course number and title: BIOL 503, Special Topics in Ecology

   Number of credits: 3-4 Total hrs/week: 3-6 Lecture: 3 Lab: 0-3
   This course may sometimes include a lab in which case the number of credits will be 4.

3. Course will be offered first: Spring, 1997

4. Catalog description (please limit to 50 words):
   Investigation of advanced specific areas of ecology beyond General Ecology (BIOL 341). Examples of offerings may include marine microbial ecology, phytoplankton ecology, benthic ecology, community ecology.

5. Prerequisites (or other restrictions):
   BIOL 111/111L, BIOL 112/112L, and BIOL 341 (General Ecology) or permission of the instructor.

6. Rationale/justification for course (consider the following issues): (Note: if more space is needed, attach additional sheets to this form).

   (a) What are the goals and objectives of the course?
   To provide students with training in advanced and more specialized areas of ecology. Anticipated topics include benthic ecology, phytoplankton ecology, marine microbial ecology, population ecology, and community ecology. One major objective is to provide additional course options for students in both Marine Biology and Environmental Studies. This course will expose potential and incoming students to new faculty and new areas of study which are currently not well represented in our course offerings.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   General Ecology (BIOL 341) is one of the “core” courses in biology. Special Topics in Ecology will give students an opportunity to focus more specifically on particular areas within ecology and/or apply principles learned in general ecology to specific ecosystems. Specifically for the Marine Biology programs, the proposed course will provide a variety of options for exploring the interactions of specific groups of organisms with their physical and biological surroundings. This will augment the relatively larger number of courses focused at or below the level of the individual organism.

7. Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   No.

8. Is this course part of joint program? _X_ Yes ___No. If “Yes”, what institution? MUSC
   Will the other institution use the same course number and title? ___Yes _X_ No. If “No” what will be the course number and title at the other school? This course will also have an EVSS number 503, same title.

9. Method of teaching:
   This is a special topics course and the methods of teaching may be different depending upon the topic and the instructor.
Methods will range from lecture plus discussion to lecture with lab. Lectures will be derived from the primary literature as well as the main text, and will focus on concepts.

10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course:

(b) Address potential shifts in staffing of the departments as it relates to the offering of this course. (Note: If more space is needed, attach additional sheets to this form.)

The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering this course as a 500-level course, we can enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

11. Requirements for additional resources made necessary by this course:

(a) **Staff**
   We continue to be understaffed. However, offering this course will allow us to meet our obligations to the graduate program without sacrificing our undergraduate program.

(b) **Budget**
   No special supplies or materials are required for this course that are also not required for BIOL 341, General Ecology. Some materials have already been purchased that can be used in those offerings of BIOL 503 that include a field component. There are no additional costs associated with this course.

(c) **Library**
   None anticipated.
   (Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
BIOL 503, Special Topics in Ecology  
New Course Proposal 

REVIEW/APPROVALS 

13. Signature of Graduate Program Director: _______________________________ Date submitted: 2/7/96 

14. Signature of Department Chair: _______________________________ Date submitted: 2/7/96 

15. Signature of School's Dean: _______________________________ Date submitted: 2/9/96 

16. Signature of Budget Director, Business Affairs Office: _______________________________ Date submitted: 

17. Signature of Chair of Faculty Committee on Graduate and Continuing Education: _______________________________ Date submitted: 

18. Signature of Chair of Graduate Council: _______________________________ Date submitted: 

19. Signature of Faculty Senate Secretary: _______________________________ Date approved by Senate: 

Completed forms should be sent by the Graduate Studies Office to the following:  
1. Registrar (for entering course in SIS course inventory)  
2. Department Chair  
3. Graduate Program Director  
4. Business Affairs Office (for establishing course fee structure in SIS)  
5. Academic Affairs
SPECIAL TOPICS COURSE IN ECOLOGY:
MARINE MICROBIAL ECOLOGY

INSTRUCTOR: Dr. Craig Plante

COURSE OVERVIEW:

One of the simplest definitions of ecology is "the study of the abundance and distribution of organisms". In this course we will explore the physical and the biological features and interactions which determine the abundances and distributions of marine microbes. Our definition of "microbes" will include both eukaryotes and prokaryotes, but emphasis will be on the prokaryotes. A central goal of ecology is to try to reduce the incredible complexity of the natural world to an oversimplified, yet hopefully still useful, set of principles. This course will provide an understanding of ecological theory and we will critically examine some real-world applications of such theories. Ultimately, students should be able to relate ecological principles to the most current basic research questions regarding marine microbes, as well as to applied problems associated with marine pollution, resource and waste management, pathogen control, and aspects of mariculture.

We will attempt to highlight the most important principles through lecture and discussion. You are, however, responsible for all material in assigned readings.

COURSE CREDIT: 3 credit hours

COURSE FORMAT: lecture and discussion (no lab)

TEXT: Marine Microbiology (B. Austin, 1988)
Additional readings will be announced in class and placed on reserve.

GRADE DETERMINATION:

Grades will be determined from the following: two written exams (25% each) and one term paper (20%) plus one research proposal (30%).

Exams are primarily essay with some short-answer. Exams will cover both lecture material and assigned readings.

The term paper topic will be selected by the student but must be approved by instructor. The term paper will be presented in both written and oral formats.

The proposal will require consideration of a current problem or question relevant to marine microbial ecology. Extensive use of recent journal articles is a must! The NSF format for proposals will be used (examples will be provided).
MARINE MICROBIAL ECOLOGY

LECTURE TOPICS:

I. INTRODUCTION
   A. Course goals and overview
   B. History of marine microbiology

II. SURVEY OF MARINE MICROORGANISMS
   A. Eukaryotes
      1. microalgae
      2. fungi
      3. protozoa
   B. Prokaryotes
      1. eubacteria
         a. physiological characteristics
         b. physical/chemical characteristics
      2. archaebacteria
      3. cyanobacteria

III. PHYSIOLOGICAL ADAPTATIONS OF MARINE MICROORGANISMS
   A. The marine environment -- abiotic factors
   B. Microbial responses to external variables
      1. role of diffusion
      2. chemotaxis
      3. substrate availability
      4. pH, temperature, salinity, pressure

IV. MICROBIOLOGICAL METHODS
   A. Sampling
   B. Sample processing
   C. Methods for detection (numbers vs. biomass)
   D. Detection or characterization of specific taxa/functional groups
   E. Estimation of growth
   F. Measurement of metabolic activity
   G. Statistics in microbial ecology

VI. EVOLUTION AND STRUCTURE OF MARINE COMMUNITIES
   A. Colonization and succession
   B. Biofilms
   C. Diversity and stability of microbial communities
   D. Ecosystem modeling
VII. MICROBE-BASED ORGANISMAL INTERACTIONS

A. Microbe-microbe
   1. intraspecific
   2. interspecific

B. Plant-microbe

C. Animal-microbe

VIII. FUNCTIONAL ROLE OF MICROORGANISMS IN ECOSYSTEMS

A. Contributions to community structure/dynamics
   1. pelagic microbial loops
   2. benthic microbial loops
   3. bacteria as food for metazoa

B. Biogeochemical cycles
   1. carbon cycle
   2. nitrogen cycle
   3. sulfur cycle
   4. other elemental cycles

IX. ECOLOGICAL PRINCIPLES AND APPLIED PROBLEMS

A. Opportunities
   1. biodegradation of pollutants
   2. fuel/biomass production
   3. biotechnology
   4. biological control of pests

B. Problems
   1. biodeterioration/biofouling
   2. mobilization of pollutants
   3. animal pathogens
### Lecture 1: Introduction to Phytoplankton Ecology: Ecological Theory

### Lecture 2: Taxonomic Survey of Marine Phytoplankton

### Lecture 3: Distribution and Abundance of Marine Phytoplankton in Various Oceanographic Regimes

### Lecture 4: Marine Autotrophic Production

### Lecture 5: Nutrient Uptake Kinetics and Assimilation Rates

### Lecture 6: Growth Rate Measurements

### Lecture 7: Factors Limiting Phytoplankton Growth in the Sea

### Lecture 8: Light in the Sea

### Lecture 9: EXAM I

### Lecture 10: Macro-nutrient Limitation

### Lecture 11: Micro-nutrient Limitation

### Lecture 12: Fe-limitation in the Sea

### Lecture 13: Impact of Grazing on Phytoplankton Populations in the Sea

### Lecture 14: Physiological Ecology of Marine Eucaryotic Ultraplankton

### Lecture 15: Physiological Ecology of Marine Procaryotic Picoplankton

### Lecture 16: Primary Productivity and Biogeochemical Cycles in the Sea

### Lecture 17: Molecular Ecology of Phytoplankton Photosynthesis

### Lecture 18: Importance and Measurement of New Production

### Lecture 19: New Production in Various Oceanographic Regimes

### Lecture 20: EXAM II

### Lecture 21: Phytoplankton Ecology in Coastal Waters

### Lecture 22: Phytoplankton Ecology in the Pacific Equatorial Upwelling Region

### Lecture 23: Phytoplankton Ecology in the Southern Ocean

### Lecture 24: Phytoplankton Ecology in the North Atlantic Ocean

### Lecture 25: Phytoplankton Ecology in the Oligotrophic Ocean

### Lecture 26: Satellite Ocean Color and Phytoplankton Ecology

### Lecture 27: Phytoplankton and the Global Carbon Cycle

### Lecture 28: Phytoplankton and Global Climate

### Lecture 29: FINAL EXAM

Course Objective: To introduce each student to the diversity of marine phytoplankton in various oceanographic regimes and to gain an insight into the factors limiting primary productivity in the sea. Finally, the student will be introduced to phytoplankton ecology and its role in affecting the global carbon and climates cycles.

Laboratory:

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<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>General Introduction</td>
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<tr>
<td>2</td>
<td>Nutrient Measurements (Spectrophotometric)</td>
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<tr>
<td>3</td>
<td>Micro-Nutrient Measurements (Atomic Absorption)</td>
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<tr>
<td>4</td>
<td>Phytoplankton Abundance (Laser particle counter)</td>
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<tr>
<td>5</td>
<td>Fluorometric chlorophyll a determination</td>
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<tr>
<td>6</td>
<td>HPLC accessory pigment measurements</td>
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<tr>
<td>7</td>
<td>Productivity vs. Irradiance experiment</td>
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<tr>
<td>8</td>
<td>Grazing and Dilution Experiments</td>
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<td>9</td>
<td>Dimethylsulfide and Phytoplankton (GC analyses)</td>
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<tr>
<td>10</td>
<td>Field Trip</td>
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<tr>
<td>11</td>
<td>Student Project Presentations</td>
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<tr>
<td>12</td>
<td>Student Project Presentations</td>
</tr>
</tbody>
</table>

Grades: Grades will be determined from the following: 3 exams worth a total of 75%, and the lab write-ups and presentation will be worth 25%. The lowest exam score for each student will be worth 15% and the other two exams will be worth 30% each. Each exam will cover material from the preceding section only, and the final exam will not be cumulative. Exams will cover all assigned readings as well as lecture material. Exam questions will include definitions, short answers, and short essay questions. Note that class attendance is strongly advised as lectures will include material not covered in the text. There are no excuses accepted for missed exams; personal tragedies verified by the Dean of Undergraduate Studies will be considered for incompletes in the course. If an exam is missed, I must be notified before the next class to schedule a make-up.

Grades will be determined according to the following scale:

- A = 90-100
- B+ = 85-89
- B = 80-84
- C+ = 75-79
- C = 70-74
- D = 65-69
- F = 0-64

Laboratories: The labs will be held in either the classroom (Rm. #101) or in Rm. #209. The laboratories will be both demonstrations and hands-on experiences but write-ups will be required for all. Lab notebooks will be due on a definite date, and any turned in late will lose 10% of the maximum grade per day. No write-ups will be accepted more than 5 days late. At least one field trip will be made. Details will be provided as soon as the final arrangements have been made.

Student Presentations: Each student will prepare a 7-8 minute talk on an oceanographic topic agreed upon by the instructor before spring break. A two minute question/answer period will follow each presentation. Presentations will be made during the last two laboratory periods and will be worth 25% of the lab grade.
UNIVERSITY OF CHARLESTON, S.C.
Faculty Committee on Graduate and Continuing Education
New Graduate Course Proposal

1. Department: Biology

2. Course number and title: BIOL 645, Systematic Biology
   Number of credits: 3
   Total hrs/week: 3
   Lecture: 3
   Lab: 0

3. Course will be offered first: Spring, 1997

4. Catalog description (please limit to 50 words):
   An in-depth coverage of the principles of systematics with emphasis on reconstruction of relationships and evolutionary history of organisms. Topics include current theories of systematic and evolutionary biology, methods of phylogenetic systematics, and critical evaluation of phylogenetic hypotheses.

5. Prerequisites (or other restrictions):
   At least one upper division course in organismal biology.

6. Rationale/Justification for course (consider the following issues): (Note: if more space is needed, attach additional sheets to this form).
   (a) What are the goals and objectives of the course?
      To familiarize the student with the principles and methods of systematics and comparative biology that are fundamental to an appreciation and an understanding of organismal biology and evolutionary biology. This course would fill gaps in the current undergraduate and graduate curricula. The course will be especially useful for students conducting research in conservation biology, ecology, organismal biology, or evolutionary biology. Many of our students do their thesis research in whole organism biology, but due to an inadequate background preparation of the gap in our curriculum, never fully appreciate where their studies fit into the grand scheme of biology. Becoming conversant with systematic biology would provide a foundation for many aspects of organismal and evolutionary biology and allow students to approach their research with perspective not otherwise available.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
      Systematic Biology is a major part of the foundation upon which all other areas of biology rest and is of critical importance to ecology, organismal biology, and evolutionary studies. Systematics, by offering insights into the relationships of organisms and their phylogenetic histories, is of preeminent importance in the search for solutions to the biodiversity crisis. Perhaps most importantly from the standpoint of the student, systematics requires its practitioners to think critically, and for that reason alone would be a very valuable addition to the curriculum of biology.

7. Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   Yes - Geology and Sociology/Anthropology. See attached letters of support.

8. Is this course part of Joint program? _X Yes _ No
   If "Yes", what institution? MUSC
   Will the other institution use the same course number and title? _X Yes _ No
   If "No" what will be the course number and title at the other school? This course will also have an EVSS number 627, same title.

9. Method of teaching: Lectures by instructor, student presentations, discussions, and computer-based analyses of problems in systematics. Students will be required to submit a paper in addition to a verbal presentation.
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course:
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.
(Note: If more space is needed, attach additional sheets to this form.)

We are offering a similar course at the 400-level. The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding a new course to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering this course as a 400/600 level course, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

11. Requirements for additional resources made necessary by this course:
   (a) Staff We continue to be understaffed. However, offering this course will allow us to meet our obligations to the graduate program without sacrificing our undergraduate program.
   (b) Budget The Department of Biology continues to struggle to offer enough spaces in 300-level and above biology courses. This course will fulfill some of that need and also serve students in the Marine Biology and Environmental Studies Graduate Programs.
   (c) Library None anticipated.

(Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
REVIEW / APPROVAL PROCESS

13. Signature of Graduate Program Director: [Signature]
   Date submitted: 2/7/96

14. Signature of Department Chair: [Signature]
   Date submitted: 2/7/96

15. Signature of School's Dean: [Signature]
   Date submitted: 2/9/96

16. Signature of Budget Director, Business Affairs Office: [Signature]
   Date submitted: [Blank]

17. Signature of Chair of Faculty Committee on Graduate and Continuing Education: [Signature]
   Date submitted: [Blank]

18. Signature of Chair of Graduate Council: [Signature]
   Date submitted: [Blank]

19. Signature of Faculty Senate Secretary: [Signature]
   Date approved by Senate: [Blank]

Completed forms should be sent by the Graduate Studies Office to the following:
1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course for structure in SIS)
5. Academic Affairs Office
SYSTEMATIC BIOLOGY

An in-depth coverage of the principles of systematics with emphasis on reconstruction of relationships and evolutionary history or organisms. Topics include: historical and current theories of systematic and evolutionary biology, methods of phylogenetic systematics, and critical evaluation of phylogenetic hypotheses.

Textbook

Reference Books

Classics

Course Objectives
To familiarize the student with the principles and methods of systematics and comparative biology that are fundamental to an appreciation and an understanding of organismal biology and evolutionary biology.

Syllabus of Lectures and Discussions
(for a Tuesday-Thursday Sequence)

Part I: Basic Concepts

Lecture 1: History of Classification and Systematics: the Linnean hierarchy and Pre-Darwin classifications; Darwinism and its influence on classification.
Lecture 2: Comparison of Schools of Systematics: evolutionary systematics (the
Mayr-Simpson tradition), phenetics (numerical taxonomy), cladistics (phylogenetic systematics).

Lecture 3: Basics of cladistics (1)--Cladograms, evolutionary trees, evolutionary
hypothesis ("scenarios"). Evolutionary grade vs. phylogenetic clade.
Monophyly, paraphyly, polyphyly.

Lecture 4: Basics of cladistics (2)--Characters and character polarity: plesiomorphy
vs. apomorphy; synaplesiomorphy, synapomorphy, autapomorphy; ordered
vs. un-ordered characters; for ordered characters, how to establish
classification polarity: outgroup analysis, ontogeny, stratigraphy, form-
function analysis; parsimony tests of character polarity.

Lecture 5: Homology: homology vs. analogy; methods for establishing homology:
comparative morphology, ontogenetic development, synapomorphies as
homology. Parsimony tests of homology ("congruence tests").

Part II. Classification, Nomenclature, and Species Concepts

Lecture 6: Basic Rules Nomenclature: types, identification and keys, diagnosis,
priority in publication, synonymies.

Lecture 7: Species concepts: biological species and other species concepts.

Lecture 8: Modes of speciation: allopatric (parapatric), parapatric, sympatric, sibling
species, co-evolution, anagenesis vs. cladogenesis.

Lecture 9: Problems and conflicts in evolutionary and phylogenetic classifications
above species level.

Lecture 10: Exam I (30% of the grade)

Part III. Practical Approaches to Phylogenetic Reconstructions:

Lecture 11: Introduction to character-taxon matrix: how to build it? (Homework
assignment)

Lecture 12: Introduction to MacClade: concepts of tree length, consistency index,
retention index.

Lecture 13: Introduction to PAUP: phylogenetic analysis using parsimony: consensus
trees, rooted vs. unrooted trees.

Lecture 14: Introduction to Hennig 66.

Lecture 15: Assessment of trees: frequency distribution of tree lengths,

Lecture 16: Boot-strap statistical tests.

Lecture 17: Recent progress in experimental phylogeny and debates on tree
assessments.

Lecture 18: Characters revisited: discrete vs. continuous characters.

Lecture 19: Characters in molecular systematics.

Lecture 20: Topics in molecular systematics.
Systematic Biology

Part IV. Applications of Systematics

Lecture 21: Phylogenetic systematics as the foundation to comparative biology.
Lecture 22: Systematics and biogeography (1).
Lecture 23: Systematics and biogeography (2).
Lecture 24: Systematics and historical ecology.
Lecture 25: Systematics and behavioral evolution.
Lecture 26: Systematics and conservation biology.
Lecture 27: Systematics and conservation biology.
Presentations: Student Presentations (20% of the final grade).

Final Exam (50% of the final grade).
To: Louis Burnett, Chair  
Biology Department

Fr: George E. Dickinson, Chair

Re: Proposed Biology 5XX Course (Systematic Biology)

We see no problem with your department offering Systematic Biology. As a 500-level course, it would not be likely that our students would be able to take this course, since we do not have a graduate program (unless seniors are allowed to take 500-level courses). Many of our anthropology majors become majors after having already taken BIOL 101/102. Would that sequence be considered the "equivalent" of BIOL 111/112, if indeed upper-division undergraduates could take a 500-level course? Also, one of our faculty wanted to know what your department's definition of an "organismal biology" course is?
MEMORANDUM

TO: Wayne Jordan, Chair, Curriculum Committee

FROM: Michael P. Katuna, Chairman, Department of Geology

SUBJECT: Biology Course Proposal.

The Geology Department has reviewed the Systematic Biology (Biology 5XX) course proposal, and supports its adoption.

jen

cc: Louis Burnett, Chair, Biology Department
UNIVERSITY OF CHARLESTON, SOUTH CAROLINA
Proposal to Change a Graduate Course

1. Department: English and Communication

2. Course Number and Title: ENGL 557 CREATIVE WRITING

3. Course changes will go into effect: Immediately

4. Change(s) Desired: New title and catalog description:
ENGL 557 CREATIVE WRITING--Poetry. Class discussion of student writing using 20th-century poems as models.

5. Justification for Change(s): As now taught 557 includes both poetry and fiction. Changing 557 and adding 563 (see other proposal) would allow for two genre-specific courses.

6. Signature of Program Director: [Signature]
   Date: 12/1/95

7. Date Approved by the Department: 12/1/95

8. Signature of Department Chair: [Signature]

RETURN FORM TO THE GRADUATE STUDIES OFFICE FOR FURTHER PROCESSING

9. Signature of Chair of the Faculty Committee on Graduate and Continuing Education: [Signature]
   Date: 2/19/96

10. Signature of Chair of Graduate Council: Date:

11. Signature of Speaker of the Faculty: Date:

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised November, 1995 and replaces all others)
1. Department: English and Communication

2. Course number and title: ENGL 563 Creative Writing--Fiction Number of Credits 3

   Total hrs/week: 3
   Lectures: 3
   Lab: __________

3. Course will be offered first: 1997


5. Prerequisites (or other restrictions): Graduate Standing

6. Rationale/justification for course (consider the following issues): (Note: If more space is needed, attach additional sheets to this form.)
   (a) What are the goals and objectives of the course? To introduce students to the craft of fiction writing

   (b) How does the course support the mission statement of the department and the organizing principles of the graduate program? It is an elective course in the MA program and complements the program's literature courses.

7. Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)

8. Is this course part of joint program? _Yes _No If "Yes", what institution? The Citadel

   Will the other institution use the same course number and title? _Yes _No If "No" what will be the course number and title at the other school?

9. Method of teaching: Lecture and discussion

OVER
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course: This course results from splitting ENGL 557 CREATIVE WRITING into two genre-specific courses—poetry and fiction. See other proposal to change 557.

(b) Address potential shifts in staffing of the departments as it relates to the offering if this course. (Note: If more space is needed, attach additional sheets to this form.)

None. The department already has a fiction writer who will teach this course.

11. Requirements for additional resources made necessary by this course:

(a) Staff None

(b) Budget None

(c) Library None

(Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

REVIEW / APPROVAL PROCESS

13. Signature of Graduate Program Director: [Signature] Date submitted: 12/1/95

14. Signature of Department Chair: [Signature] Date approved 12/1/95

15. Signature of School's Dean: [Signature] Date approved 1/3/96

16. Signature of Budget Director, Business Affairs Office: [Signature] Date reviewed: 12/1/95

17. Signature of Chair of Faculty Committee on Graduate and Continuing Education: [Signature] Date approved: 2/19/96

18. Signature of Chair of Graduate Council: [Signature] Date approved:

19. Signature of Faculty Senate Secretary: [Signature] Date approved:

Completed forms should be sent by the Graduate Studies Office to the following:

1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course fee structure in SIS)
5. Academic Affairs Office

This form was last revised November 16, 1994 and replaces all others.
1. **Department:** Biology

2. **Course number and title:** EVSS 628, Plant Ecology
   
   Number of credits: 4  
   Total hrs/week: 6  
   Lecture: 3  
   Lab: 3

3. **Course will be offered first:** Fall 1996

4. **Catalog description (please limit to 50 words):**
   Plant Ecology will explore the population ecology of plants covering the genetic, spatial, age and size structure of plant populations. The focus will be on understanding the origin of these different kinds of structures, understanding how they influence each other, and understanding why they change with time.

5. **Prerequisites (or other restrictions):**
   General Ecology (Biology 341) or permission of the instructor.

6. **Rationale/justification for course (consider the following issues):** (Note: if more space is needed, attach additional sheets to this form).
   
   (a) **What are the goals and objectives of the courses?**
   The goals of this course are to provide an in-depth understanding of ecological concepts as they apply to plants (the focus will be on terrestrial plant communities). The course will provide a detailed examination of ecological theory and the application of theory as it pertains to plants. The course will familiarize students with experimental techniques in plant ecology and with the primary literature and will expand upon the ecological principles covered in general ecology.

   (b) **How does the course support the mission statement of the department and the organizing principles of the major?**
   The Biology Department also has a new graduate program in Environmental Studies. Yet, aside from marine oriented courses, we have few advanced courses to offer graduate students. Plant ecology would begin to fill this need by providing Environmental Studies students with an advanced ecology course that has a terrestrial focus. The faculty member (Paul Marino) hired specifically for this program is a plant ecologist.

7. **Are other Departments affected by this course?** (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   No.

8. **Is this course part of joint program?** _X_ Yes _No._ If “Yes”, what institution? MUSC
   Will the other institution use the same course number and title? _X_ Yes _No._ If “No” what will be the course number and title at the other school?

9. **Method of teaching:**
   Lecture plus a laboratory section that will emphasize experimental ecology. About 1/3 of the laboratories will also be dedicated to a discussion of papers from the primary literature. Students will be required to write an extensive research paper derived from the primary literature emphasizing conceptual issues in plant ecology.
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course.
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

We are offering a similar course at the 400-level. The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding a new course to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering this course as a 400/600 level course, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

11. Requirements for additional resources made necessary by this course:
(a) Staff We continue to be understaffed. However, offering this course will allow us to meet our obligations to the graduate program without sacriﬁcing our undergraduate program.
(b) Budget No special supplies or materials are required for this course that are also not required for BIOL 341, General Ecology. Some materials have already been purchased that can be used in many such field courses. There are no additional costs associated with this course.
(c) Library None anticipated.

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
## REVIEW / APPROVAL PROCESS

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<td>Signature of Graduate Program Director:</td>
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<td>14</td>
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<td>2/7/96</td>
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<td>15</td>
<td>Signature of School's Dean:</td>
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2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course for structure in SIS)
5. Academic Affairs Office
The goals of this course are to provide an in-depth understanding of ecological concepts as they apply to plants, focusing on terrestrial plant communities. A central goal of ecology is to try to reduce the incredible complexity of the natural world to an oversimplified, yet hopefully still useful, set of principles. This course will provide an understanding of ecological theory as it pertains to plants and we will critically examine some real-world principles to problems of habitat and species conservation, pollution, resource management, pest control and areas of environmental planning. The course will familiarize students with experimental techniques in plant ecology and with the primary scientific literature. The course will build and expand upon the ecological principles covered in General Ecology (Biol 341). A detailed outline for each lecture topic is given in Appendix 1.

Lecture and laboratory will emphasize experimental ecology. About 1/3 of the laboratories will also be dedicated to a discussion of papers from the primary literature (See Laboratory: Discussion Topics/Readings). Students will also be required to write an extensive research paper derived from the primary literature (See Appendix 2) with an emphasis on conceptual issues in plant ecology.

The prerequisite for the course is Biol. 341 (General Ecology) or an equivalent course. Students are expected to be familiar with computers and statistical analysis.

Course requirements:

Lecture: 3 in-class tests, one final exam

Lab: Assignments as detailed in each laboratory exercise, participation in Discussion and two short (2 page) critiques of selected papers covered in discussion.

Research Paper: As discussed previously (Appendix 2).

Grading Policy:

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<th>Score Range</th>
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<td>A</td>
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<td>C</td>
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Course grade:

40% tests (3 tests, lowest score worth 10%, highest two worth 15% each) + 20% final exam + 20% lab (7.5% write-ups, 7.5% critiques and 5% discussion) + 20% term paper.
Plant Ecology

REQUIRED TEXTS:

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<th>Lecture</th>
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<tr>
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<td>Seed dormancy</td>
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<td>Density-yield relationships, self-thinning</td>
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<td>Disturbance and succession</td>
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S = Chapters in Silverton and Lovett Doust
H = Chapters in Harper
General References:


Appendices:

Appendix 1: Detailed outlines for each lecture topic.

Appendix 2: Term paper assignment (for graduate credit).

Appendix 3: Plant competition laboratory exercise.

Appendix 4: Natural enemy laboratory.

Appendix 5: Pollination laboratory.
**Plant Ecology**

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General References:


Term Paper

The paper should consist of a literature review attempting to answer a specific question or test alternative hypotheses about some aspect of plant population biology. Within 2 weeks you should turn in a brief (<1 page) description of your paper topic. The paper (ca. 15 pp) is due the last day of class. A list of possible topics is given below; I can suggest starting references for these or other topics you are interested in.

correlates of seed size — documentation and consequences
germination requirements and demographic consequences
genetic variation on a microscale
frequency-dependent competition in plants
male fitness components in hermaphrodites
density-dependent consumption of plants
pathogens and plant demography
microorganisms and plant-plant interactions
‘climax’ species and regeneration in gaps
stress tolerance and competitive ability
coevolution of competitors in plants
survivorship curves among habitats and/or growth form
population dynamics of clonal plants
allelopathy in natural communities
cost of reproduction
Plant Competition

Plants can compete for resources such as light, water and nutrients when their canopies or root areas overlap. Therefore, the density of plants in an area can affect resource availability and determine the growth rates of individuals. Competition may be within a species (intraspecific) or between individuals of different species (interspecific). Species differences in growth form (such as shape of leaves and their arrangement on a stem), root depth and development, rate and diurnal pattern of water and nutrient uptake from the soil may all influence the magnitude of the effect of competition.

In this project you will be measuring the effect of increasing density on the growth of plants. You will be able to design your own experiment to test hypotheses about expected differences in competitive effects of different species or under different environmental conditions.

The effect of intraspecific competition in plant populations is usually examined by planting the species over a range of densities. The most common result is that the mean weight per plant decreases as density increases (Fig. 1) so that total yield approaches some constant value (Fig. 2) (See Harper 1977, Chapter 6). This result is called the “Law of Final Yield”. We can think of this constant yield as the carrying capacity (in terms of biomass) of the particular environmental conditions of the experiment. Graphs such as Fig. 2 can be used to approximate the optimal planting density for a particular crop -- the density at which increasing the planting density no longer results in an increase in total yield. It has generally been found that the best way to describe the results of a density experiment is the reciprocal yield equation: \( \frac{1}{w} = A + Bd \), where \( w \) = mean plant weight, \( d \) = density, and \( A \) and \( B \) are regression constants. In this equation, a large (positive) \( B \) value implies a strong competitive effect.

However, most plants do not occur in monocultures (even crops have weeds of various species) but experience interspecific competition from a number of other species. We will study the effects of interspecific competition by using an experimental design similar to the one described above for intraspecific competition. To measure the effect of the density of species \( j \) (the associated species or competitor) on the per-plant weight of species \( i \) (the indicator species), we keep the density of species \( i \) constant (intensity of intraspecific competition constant) and vary the density of species \( j \) (intensity of interspecific competition constant).
competition variable). This type of experiment is called an additive design because plants of the competitor are added to those of the indicator species so that total density of the mixture is varied. Harper (1977; pp. 249-255) discusses several examples of additive designs.

If density of the indicator species is kept low enough so that intraspecific competition is weak or nonexistent, we can use the reciprocal yield equation to describe interspecific competition \( \frac{1}{w_i} = A_i + B_{ij}d_j \), where \( w_i \) = mean plant weight of the indicator species \( i \), \( d_j \) = density of the competitor species, \( B_{ij} \) = the competitive effect of species \( j \) on \( i \), and \( A_i \) = the reciprocal of the weight of the indicator species when no competitors are present (\( d_j = 0 \)).

Using this basic design and analysis, each section will design their own experiment to test hypotheses about expected differences in competitive effects of different species or under different environmental conditions.

Each section will do one experiment consisting of four “treatments” (we should have 2 groups per treatment). A single treatment consists of one indicator species and one competitor species grown at seven different densities of the competitor with 2 replicate flats per density. The treatments can be different combinations of species or the same combination under different environmental conditions. Some suggested experiments are given below:

1. Compare intensity of competition (\( B_{ij} \)) for several competitor species on a single indicator species. Choose your species so that you can develop hypotheses about which species should be the strongest competitor from a knowledge of its morphology or physiology. For example, you could compare several species of similar growth form but different seed size. (If you include the same species as both indicator and associated species you can also compare the intensity of inter to interspecific competition.)

2. Compare intensity of competition for several indicator species with the same competitor species, again choosing species so that you can develop some hypotheses about the results.

3. Compare the same species pair but reversing which one is the indicator and which one is the competitor. Do species with a strong effect as competitor (large \( B_{ij} \)) not respond very much when they are the indicator species (small \( B_{ij} \))?

4. Compare the same pairs of species under various resource levels -- e.g., with different levels of fertilizer or amounts of water. Do you expect the B’s to be higher or lower at higher resource levels? For example, try a legume and a grass at low nitrogen and at high nitrogen.

5. Compare the same species pair with the competitor introduced at different times -- e.g., 1 week before the indicator, simultaneously with the indicator, 1 week after. You may be able to mimic different times of planting by choosing species which take different amounts of time to germinate (see germination data posted in lab).
Plant Species

The following species of plants will be available:

<table>
<thead>
<tr>
<th>Seed</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamb's quarter (<em>Chenopodium</em>)</td>
<td>Annual, C_3_, erect, dicot</td>
</tr>
<tr>
<td>Annual rye (<em>Lolium</em>)</td>
<td>Annual, C_3_, grass., monocot</td>
</tr>
<tr>
<td>Thistle (<em>Circium</em>)</td>
<td>Rosette, C_3_, monocarpic, dicot</td>
</tr>
<tr>
<td>Red clover (<em>Trifolium</em>)</td>
<td>Perennial, C_3_, legume, dicot</td>
</tr>
<tr>
<td>Perennial ryegrass</td>
<td>Perennial, C_3_, grass, monocot</td>
</tr>
<tr>
<td>Pigweed (<em>Amaranthus</em>)</td>
<td>Annual, C_4_, erect, dicot</td>
</tr>
<tr>
<td>Foxtail grass (<em>Setaria</em>)</td>
<td>Annual, C_4_, grass monocot</td>
</tr>
</tbody>
</table>

Look over the specimens of all the species and choose pairs suitable for the experiment you have designed. Foxtail grass has the C_4_ photosynthetic pathway, while all the other grasses are C_3_. How might this factor affect the outcome of competition? Legumes are nitrogen fixers — they have symbiotic bacteria, *Rhizobium*, in root nodules that convert atmospheric nitrogen into a form usable by the plant. How might this affect the outcome of competition with a non-nitrogen fixing species? How about under conditions of low and high nitrogen fertilization? Another major consideration is seed size. The seeds of the nine species vary enormously. How might this factor affect competition?

Methods

Planting Procedures

1. Prepare 14 flats for each treatment: 7 densities of the competitor and 2 replicates at each density.

2. Indicator species should be at 9 plants per flat. Competitor species should be at densities of 0, 8, 16, 31, 62, 125, and 250/flat.

3. Count the appropriate number of seeds of the competitor species.

4. Plant the indicator species by placing the seeds in a regular pattern over the soil surface and place a plastic toothpick next to each seed. This will help you to find the indicator plants after the competitors germinate, especially in the higher density flats or where the competitor is the same species as the indicator. Check the flats every week: first for germination of the indicators and later for their survival.

5. For the low density competitor flats, you can also place individual seeds in a regular pattern distributed over the entire flat. For the higher density flats just try to spread the seeds evenly.
Harvest

The flats will be harvested after five weeks. Keeping indicators and competitors separate, count the number of surviving plants, clip at ground level, weigh the indicators and competitors for each flat and calculate mean indicator weight. Then put the indicators and competitors n a plant press and place the entire press into the oven at 65 for 48 hours so we can also obtain dry weights if needed.

Equipment

- flats
- planting medium
- metersticks
- seeds
- enamel trays for sorting seed
- plastic toothpicks
- hand counters
- Mettler balance for fine weighing
- Ohaus balances for coarse weighting
- markers and marking pens for labeling flats

Analysis

Draw the appropriate plots and calculate regression for the reciprocal yield equation. Try using both initial and final densities as well as final weights of the competitors as the independent variable. Which gives you the highest correlation coefficients? Also, try using both mean weight per indicator plant and number of surviving indicator plants as the dependent variable. Which gives you a better fit to the equation?

Questions to Think About

1. What hypothesis were you testing in your experiment? What reasoning led you to develop this hypothesis?
2. Is your hypothesis supported by the results? What conclusions can you draw? If so, why? Use statistics to support your answer.

References (all are on reserve in the library)

DISTRIBUTION OF A PLANT PARASITE ON ITS HOST PLANT

If bees are not foraging, we will do this field laboratory instead.

At the Botanical Gardens, we will examine the distribution of a plant parasite on its host species. This parasite makes galls that will be available regardless of the weather! Although we will not directly observe insect behavior, we can observe it indirectly by recording the galls made by the parasite. In this lab you will examine the distribution of galls on its host plant. You will test the patterns of distribution and propose possible causes of the pattern you find.

Plant Galls and Gall Makers

You will examine a plant parasite that causes its host plant to form galls in which the insect lives. Galls are produced by some insects, mites, nematodes, bacteria, and fungi. They can be formed on any plant part, including roots, stems, fruits, and leaves. The gall-maker derives protection and food from the gall, while the plant is often harmed by the presence of galls; thus gall-makers are parasites of plants.

Galls formed by insects and mites are particularly conspicuous and abundant. There are well over 1,000 species of gall-forming insect and mites in North America. Most of these can form galls on only one plant species or a few closely related species, and then only on a particular part of the plant.

We know little about the mechanisms by which gall-makers cause plant cells to divide abnormally to produce galls, but biochemical secretions of the gall-makers apparently play an important role. The growth of plant cells in galls may be similar to the growth of cancerous tissues in animals.

We will study galls formed on leaves of choke cherry, Prunus virginiana, by mites belonging to the family Eriophyidae (a different gall-maker and plant species may be substituted if necessary). Choke cherry is a common shrub in most areas of the Botanical Gardens. The mite galls are small, oblong, greenish to reddish structures on the upper surfaces of the leaves. The mites that form the galls are microscopic, so we will not be looking at them directly, only at the galls they form.

Life history of gall mites: A single adult female mite usually starts each gall which then supports the growth of her progeny. One female may initiate more than one gall in her lifetime, but information on this point is difficult to find. The galls can only form on young leaves, i.e., leaves that are still growing. Often, you can already see galls on leaves shortly after bud-break in spring. Gall mites disperse between plants primarily by floating on wind currents. Most gall mite species
Question 1. Distribution of mite galls within plants.

Select one choke cherry that has mite galls on an appreciable number of leaves; choose a plant between 1 and 3 meters tall. Randomly choose a branch or section of branch with about 40 - 70 leaves. To do this, first assign every branch a number from the random number table at the end of this lab write-up. If necessary, repeat this procedure for smaller branches or sections of a branch with a larger branch. Record the number of galls per leaf for each leaf.

Question 2. Distribution of galls among plants.

For this part, each group should study at least 5 plants between 1 and 3 meters in height. We will need to devise a technique to choose plants at random, or at least without regard to their density of mite galls. A suggested technique is to assign a number to all plants within a specified area (e.g. along a length of trail) and then choose plants for sampling from among them by using the random number table.

On each plant chosen for sampling, select 20 leaves at random. This can be done by first numbering branches mentally and choosing a branch with a random number table, then numbering leaves within branches, etc., repeating this entire procedure for each leaf. For each leaf, record the number of galls.

Also record the following information about the plant and its surroundings (we may not have time for all these; check with your T.A. for which to do):

1. Approximate height of plant and approximate number of leaves, to the nearest 10 (don't spend too long on this last one).

2. The number of other choke cherries over 1 m. tall within a 3m. radius of the plant being sampled.

3. Canopy cover over the plant (this will determine the amount of sunlight it receives). This can be done by standing by the plant and looking up through a mailing tube, recording the approximate percent of sky obstructed by leaves, to the nearest 20%. Do this looking straight over the plant, and at a 45 angle in each compass direction.

4. Anything else you can think of that might affect the distribution of mite galls on plants.
critical value, for the desired level of significance. A table of critical values is given at the end of this write-up.

**Question 2.** For each plant, calculate the mean number of galls per leaf. For the entire class' data, construct a histogram of the mean number of galls per leaf per plant (i.e. with the number of plants on the Y-axis and the average number of galls per leaf on the x-axis). Note that even if we repeatedly sampled twenty leaves from the same plant, we would not expect to come up with the same mean number of galls per leaf in each sample, because of sampling variation. Looking at the histogram, do you think there is more variability among plants in the mean number of galls per leaf than one would expect from sampling variation alone? We could use sophisticated statistical techniques such as analysis of variance to answer this question, but it probably won't be necessary.

To determine whether any of the factors we measured are related to the mean number of galls per leaf, make scatter plots for the whole 'class' data, with the factor on the X-axis and the mean number of galls per leaf for each plant on the Y-axis. Do any of the factors measured seem to give a significant relationship, either positive or negative? To answer this objectively, you could use either correlation or regression analysis (described in the statistics handout).

**QUESTIONS TO THINK ABOUT**

1. What biological processes might lead to a contagious distribution of galls within a plant? A random distribution? An even distribution? Although you may come up with a plausible hypothesis to explain the observed type of distribution, you would have to have additional information to test your hypothesis. Choose one of the processes you thought of to explain the distribution we found and explain what information you would collect in order to test if the process actually occurs.

2. What factors are good predictors of how heavily attacked a plant is? What biological processes might account for these relationships? Choose one process and briefly describe an experiment to test your hypothesis. Just because we may observe a relationship between a certain factor and how heavily attacked a plant is, does this prove there is a direct cause-and-effect relationship between the two? Why or why not?
Distribution of galls among plants

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Leaf No. | Plant 1 | Plant 2 | Plant 3 | Plant 4 | Plant 5 |
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Total:     |         |         |         |         |         |
Mean:      |         |         |         |         |         |
Distribution of galls within plants

<table>
<thead>
<tr>
<th>Leaf # of galls</th>
<th>Number of galls</th>
<th>Leaf # of galls</th>
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<th>Leaf # of galls</th>
<th>Number of galls</th>
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Total # galls =
Mean # galls per leaf =

# leaves sampled =
Variance =
THE FORAGING BEHAVIOR OF BEES

In this field laboratory at the Matthaei Botanical Gardens, you will watch the behavior of bees that visit flowers for food (nectar and pollen) and test an hypothesis based on optimal foraging theory. You will do this by experimentally manipulating the nectar in flowers. If bees are not foraging because it is too cold, you will do the next, "back-up" lab on an insect gallmaker. Bees gather pollen by collecting the pollen that falls onto their bodies into specialized sacs (corbicula) attached to their hindmost legs. Bumblebees gather nectar by inserting their tongues into the base of the flower and ingesting the accumulated nectar. The flower is generally pollinated during nectar foraging. However, the length of the corolla of the flower limits the access of short-tongued bees to the nectar, and many bumblebees get around this difficulty by biting a hole in the base of the corolla. These bees act as thieves, and the flower may not get pollinated.

Bumblebees tend to forage on several flowers in an inflorescence and then leave before they have visited all the flowers. How do bees decide when to leave a particular inflorescence and move on? If bees are foraging optimally, then they have presumably been selected to forage so that they gather the most nectar in the least time or with the least effort. How the bee 'knows' when to leave has not yet been fully answered. Postulating that it knows that its nectar reward by continuing to forage on that inflorescence would be less than what it could get by moving to another inflorescence implies that it can assess what nectar rewards are elsewhere before actually probing flowers. The bee has some information about future flowers on the inflorescence it is probing because nectar production rates tend to be similar on all flowers of an inflorescence. But if a bee has already been to some of the flowers, can subsequent bees tell this? This question has also not been answered fully.

To answer the basic question of whether nectar rewards influence bee foraging behavior, we can manipulate nectar content of flowers and see if the bees change their foraging behavior. If the bees are foraging optimally, then the higher nectar rewards should cause the bees to probe more flowers on high-nectar inflorescences than on low-nectar inflorescences and to spend more time collecting the nectar.

**Hypothesis 1**: If bees are foraging optimally, then they will probe more flowers on inflorescences with higher nectar quantities than on inflorescences with lower nectar quantities.

**Hypothesis 2**: Bees will spend more time per probe on the high nectar flowers than on the low nectar flowers.

There are many variations that could be done with this kind of behavioral experiment. You could test whether a bee probes fewer flowers on a control inflorescence if the previous inflorescence was high-nectar than if it was a control. This prediction suggests
ANALYSIS

These data are means (number of probes per inflorescence in each kind of inflorescence or time per probe), so Student’s t-test is appropriate. The null hypothesis in this case is that the nectar reward doesn’t influence the number of probes per inflorescence so the expected means (under the null hypothesis) would be equal for the manipulated and control inflorescences. Test the null hypothesis using the observations made by the class. See the statistical appendix for computational details for the t-test.

QUESTIONS TO THINK ABOUT

1. Do the data support or contradict your hypothesis? Do bees alter their foraging behavior to take advantage of locally high nectar rewards? If they do, do they probe all of the flowers on a high-nectar inflorescence or do they leave before probing all the flowers? Can you suggest a reason why they might take a chance on a new inflorescence without probing all of the flowers on a high-nectar inflorescence? If they do not alter their behavior on high-nectar inflorescences, can you suggest a reason? For each of your postulated reasons, can you suggest a way to test it? Do you think it mattered that we counted a bee as "new" when it flew to another inflorescence in the experiment? Why or why not?

2. How might the differences in foraging behavior of the bees affect the pollination of the plant? Would increased nectar be advantageous to the plant? What factors might limit the amount of nectar per flower on a plant?

REFERENCES: (* on reserve at UGLi)


DATA SHEET FOR BEE FORAGING BEHAVIOR

Section __________________ Date __________________

Names __________________ Plant Species: ________________

Weather: Temp _____ Sky ______________ Days since rain _____

Time of day: __________ Observation interval: ___________

<table>
<thead>
<tr>
<th>Treatment (H or C) and No.</th>
<th>Number of flowers per inflorescence</th>
<th>Number of probes on each inflorescence</th>
<th>Time per probe (seconds)</th>
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Nectar measurements: Control ________ High nectar ________
Laboratory:

The laboratory will consist of both discussion (1/3) and field/greenhouse exercises (2/3). In addition to participating in the discussions, each student will moderate the discussion of one or more papers by presenting an introductory synopsis of a specific topic and by generating questions to be discussed. Discussion leaders will prepare and hand out a brief outline or summary of the topic and a short literature list. Additional assignments will include: two short (2 page) critiques on papers taken from the primary literature and written reports for each laboratory.

Discussion Topics/Readings (subject to modification):

1) Establishment and Demography

2) Breeding Systems

3) Natural Enemies

4) Resource Competition
5) Competition - Experiments

6) Coexistence and Diversity

Field and greenhouse exercises (these are examples, this is not an exhaustive list. The ability to do certain field exercises depends on whether this course is taught in the fall or spring term.):

1) Demography:
   -- This project will be set up the semester before the class is held or at the beginning of the semester (depends on the season). Randomly chosen control and experimental sites will be set up in an old field (e.g., on the Dill Estate). Experimental treatments would include, for example, the removal of standing plant biomass, soil surface litter, both and no removal controls. The influence of these treatments on recruitment, age structure, growth and reproduction of plants will be quantified.

2) Plant Competition: (NOTE: A completed lab exercise for this topic is included (Appendix 3))
   -- a) Greenhouse studies: Example: Exploring competitive effect and response. Competitive ability can be compared between species in two ways: effect of different neighbor species on performance of a single target species or response of different target species to a single neighbor species. Greenhouse experiments can be performed to determine if there are consistent hierarchies in competitive effect and/or response, what traits of individuals determine the position in these hierarchies, and whether or not effect and response competitive ability are related during the early stages of competition.
   --b) Field studies: Example: If the course is taught in the spring term, density manipulations of neighbors can be performed in old field sites on a variety of target species to explore competitive interactions between plants having different growth strategies, life-history characteristics etc.
3) **Phenotypic Plasticity:**
-- There are a number of local sites (e.g., Francis Marion Forest) where there are ongoing experiments exploring long-leaf pine/fire dynamics. In these experimental sites there are various fire regimes (e.g., 2 year, 5 year cycles). The effect of these different fire regimes on the architecture of a variety of target plant species could be examined with comparisons made between species having different growth forms and between those having and those lacking fire related life history adaptations.
-- The influence of different fire regimes on demographic parameters can also be examined in these systems.

4) **Natural Enemies:** (Note: An example of a lab exercise on this topic is included, Appendix 4) this exercise if from a similar course that I taught at the Univ. of Michigan, the only modification needed is that the project would be performed using galls common to plants in coastal South Carolina as listed below)
-- Plants generally exhibit considerable variation in the degree to which certain individuals are attacked by herbivores. This variation will be quantified as will various plant (e.g., growth, reproduction, architecture) and habitat traits (shade, sun, etc.). Cause and effect relationships will be explored. Herbivore abundance can be measured both directly (e.g., gall-formers and leaf miners) and indirectly (e.g., quantifying leaf damage by leaf chewers). Several potential systems include the: gall forming fly *Eurosta*, aphids or chrysomelid on Goldenrod, holly leaf miners on American Holly and stem gall-formers on American Dogwood.

5) **Mutualisms/Pollination:** Note: An example of a lab exercise on this topic is included, (Appendix 5) this exercise if from a similar course that I taught at the Univ. of Michigan, the only modification needed is that the project would be performed at the Dill Estate on James Island using the abundant fall flowering plants growing there in the old fields)
-- Many plants with hermaphroditic flowers that are in spikes are protandrous (male parts mature before female parts) and have flowers that mature from the bottom to the top of the spike. Flowers at the bottom of the spike produce the most nectar and are female function whereas flowers near the top produce little nectar and are male function. This results in the transfer of pollen between individuals rather than within an inflorescence. This system (and similar systems) can be manipulated by either removing and/or adding nectar to flowers. How would such manipulations affect bee foraging behavior (i.e., pollen transfer)? Given enough time and the proper season such manipulations could also be related to seed set.
UNIVERSITY OF CHARLESTON, S.C.
Faculty Committee on Graduate and Continuing Education
New Graduate Course Proposal

1. Department: Biology
2. Course number and title: EVSS 629, Conservation Biology
   Number of credits: 3  Total hrs/week: 3  Lecture: 3  Lab: 0
3. Course will be offered first: Spring 1997
4. Catalog description (please limit to 50 words):
   A course exploring the origin, maintenance and preservation of biodiversity at all levels: genetic, population, community, ecosystem and biosphere. The focus will be on applying ecological, genetic and evolutionary principles to problems in conservation. Optional field trips will make use of the rich biota of the Charleston area.
5. Prerequisites (or other restriction):
   BIOL 341 (General Ecology) and either BIOL 311 (Genetics) or BIOL 350 (Evolution), or permission of the instructor.
6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
   The goal of this course is to provide an in-depth understanding of the application of ecological, evolutionary and population-genetic theory to the maintenance of biodiversity. The course will investigate the scientific principles which underlie the establishment of sound conservation strategies, and will help students understand the links between basic and applied research.
   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   Conservation Biology will provide students with the opportunity to explore the applications of genetic, ecological and evolutionary principles to an applied problem, the conservation of biodiversity. Conservation Biology thus is a "synthesis" course, one that cuts across taxonomic boundaries and demonstrates the interconnections between other biological subdisciplines. Conservation Biology also will expand the non-marine biology course offerings available to students in the graduate program in Environmental Studies, thus complementing an existing strength of this curriculum.
7. Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   No.
8. Is this course part of joint program?  _X_ Yes  _No. If "Yes," what institution? MUSC
   Will the other institution use the same course number and title?  _X_ Yes  _No. If "No" what will be the course number and title at the other school?
9. Method of teaching:
   Lecture (with discussion of the primary literature) plus in-class demonstrations that will emphasize simulations of population dynamics and population genetics. Guest speakers from within the Department of Biology, other departments, and from industry, agencies, and nongovernmental organizations will add expertise and breadth to lectures and in-class discussions. Optional field trips will introduce students to conservation solutions that are being effected in the Charleston area. Students will be required to write a grant proposal, a species-recovery plan, a proposal for listing, or a similar professional document.
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course:
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

We are offering a similar course at the 400-level. The Department of Biology struggles to offer enough space in all of its courses, especially upper division biology courses. This has been difficult due to the rapid growth of the College and the more rapid growth (with respect to the College) experienced by this department. During the past five years the sizes of lecture sections have risen in response to enrollment pressures. Furthermore, the number of sections we have offered has increased. Nonetheless, it is still a struggle to offer enough space. Our efficiency in filling upper division classes is very high; typically greater than 95% of the upper division slots are filled. While this may seem to be admirable, students complain they are not able to get the classes of their choice and they often must take required courses later rather than sooner. A comfortable margin would yield between 10 and 15% of the available spaces unfilled.

The department needs to offer more upper division biology courses to reduce overcrowding. Adding a new courses to our curriculum will enrich the curriculum and take advantage of the expertise of our newly-hired faculty members. By offering this course as a 400/600 level course, we can also enrich the graduate curriculum, fulfill our responsibilities to the graduate program in Environmental Studies, and provide extraordinary experiences for undergraduate students. This course requires shifts in staffing of upper division biology.

11. Requirements for additional resources made necessary by this course:
(a) Staff We continue to be understaffed. However, offering this course will allow us to meet our obligations to the graduate program without sacrificing our undergraduate program.
(b) Budget Optional field trips will require vans, which the department will pay for from its operating budget.
(c) Library The department has requested a major journal, Biological Conservation. Some additional books will be purchased through the normal ordering process.
(Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
REVIEW / APPROVAL PROCESS

13. Signature of Graduate Program Director: [Signature] Date submitted: 2/1/96
14. Signature of Department Chair: [Signature] Date submitted: 2/1/96
15. Signature of School's Dean: [Signature] Date submitted: 2/9/96
16. Signature of Budget Director, Business Affairs Office: [Signature] Date submitted: 
17. Signature of Chair of Faculty Committee on Graduate and Continuing Education: [Signature] Date submitted: 
18. Signature of Chair of Graduate Council: [Signature] Date submitted: 
19. Signature of Faculty Senate Secretary: [Signature] Date approved by Senate: 

Completed forms should be sent by the Graduate Studies Office to the following:
1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course for structure in SIS)
5. Academic Affairs Office
EVSS 629: CONSERVATION BIOLOGY

Class Times: Tuesday 7:00 PM - 10:00 PM
Final Examination - Tuesday, April 30, 7:30 - 10:30 PM

Lecture Room: SCIC 121

Honor Code: This course will be conducted in accordance with the Honor Code of the College of Charleston.

Instructor: Dr. Arch McCallum
Office SCIC 207
Phone 953-6557 (o), 883-9818 (h)
Office Hours: Mon 3:00-5:00, Th 3:00-5:00, by appt.

Text:


Attendance: Attendance at all lectures is expected. A class roll will be circulated for my information, but will not be used in assigning grades without my giving notice in advance. Frankly, you shouldn't be taking this class if you have difficulty attending.

Grading: A mid-term examination, covering the first half of the course, and a final examination, covering the second half, will each contribute 22.5% of your grade. Each exam will include both objectively graded and essay questions. 30% of the grade will be determined by the quality of a publication-quality research paper, which must be presented in format suitable for submission to the journal Conservation Biology. The topic of this paper must be approved in advance by the instructor. A fourth requirement, preparing a fundable grant proposal, will be worth 25% of your grade.

Grading scheme (there will be no curve):

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<th>Grade</th>
<th>Percentage</th>
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<td>A</td>
<td>92-100</td>
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<tr>
<td>B+</td>
<td>85-91</td>
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<tr>
<td>B</td>
<td>80-84</td>
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<tr>
<td>C+</td>
<td>75-79</td>
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<td>C</td>
<td>70-74</td>
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<td>F</td>
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Objectives: The goal of this course is to provide an in-depth understanding of the application of ecological, evolutionary and population-genetic theory to the maintenance of biodiversity. The course will investigate the scientific principles which underlie the establishment of sound conservation strategies, and will help students understand the links between basic and applied research.
<table>
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<tr>
<th>Lecture Session Chapter</th>
<th>Topic</th>
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| 1. 1/16 1             | Course organization  
The Problem for Conservation: The current biodiversity crisis. Presentations by Brian Scholtens, John Fauth (both Dept. of Biology, CofC), A. McCallum. Panel discussion. Film: *Life in the Balance*. |
| 2. 1/23 2             | Philosophical foundations of conservation. Guest speaker: Ned Hettinger, Dept. of Philosophy, CofC. |
| 4. 2/6 6              | Fundamentals of microevolution. Adaptation, phenotypic plasticity, and specialization (including outbreeding depression). |
| 5. 2/13 6,7           | Problems for small populations. Genetic, demographic, and environmental stochasticity. |
| 6. 2/20 7,9           | Metapopulation dynamics and habitat fragmentation. |
| 7. 2/27               | Midterm exam |
| 8. 3/12 4,8           | Patterns of diversity [4]. Community processes (competition, predation, mutualism, disturbance) [8]. |
| 9. 3/19               | Ecosystem function and ecological services. Do the players matter? Ecosystems types (biomes) and their relative resilience. The Gaia hypothesis and global climate change [18]. Impacts of rapid climate change on biodiversity, past and present. |
| 11. 4/2               | Solutions: Preserves [10], Restoration of damaged ecosystems [14], recovery of endangered species [13], and Zoos and gene-banking. |
| 12. 4/9 15,16         | Public policy and its positive and negative impact on conservation of species, communities, and ecosystems. Possible guest speakers. |
| 13. 4/16 17,18        | The future: Sustainable development and human population dynamics. |
| 14. 4/23              | Conservation Practice in the Low Country. Possible guest speakers. |
| 4/30                  | Final Exam (7:30-10:30 pm). |
# New Graduate Course Proposal

## Masters in Environmental Studies (MES)

<table>
<thead>
<tr>
<th>1. Department:</th>
<th>Masters in Environmental Studies (MES)</th>
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<tbody>
<tr>
<td>2. Course number and title:</td>
<td>EVSS 681; Capstone Seminar</td>
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<tr>
<td>Number of Credits:</td>
<td>2</td>
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<tr>
<td>Total hrs/week:</td>
<td>2 lectures: 2 Lab: 0</td>
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<tr>
<td>3. Course will be offered first:</td>
<td>Spring 1996</td>
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<tr>
<td>4. Catalog description (please limit to 50 words):</td>
<td>The capstone seminar provides an opportunity for students to synthesize concepts in scientific, policy, and risk assessment disciplines, and to apply these concepts to solve a problem presented by the faculty. Students will define a semester-long project, which culminates in oral and written presentations.</td>
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<td>5. Prerequisites (or other restrictions):</td>
<td>EVSS 680</td>
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<tr>
<td>6. Rationale/justification for course (consider the following issues):</td>
<td>(Note: If more space is needed, attach additional sheets to this form.)</td>
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<tr>
<td>(a) What are the goals and objectives of the course?</td>
<td>Students will synthesize relevant scientific, policy, and risk assessment concepts, and will apply these to solve a problem presented as the case study. Each student's project will focus on a topic appropriate to his/her track in the MES program.</td>
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<tr>
<td>(b) How does the course support the mission statement of the department and the organizing principles of the graduate program?</td>
<td>The mission of the MES program is to prepare students for the interdisciplinary study of the environment. Students are taught science, risk assessment, and policy concepts earlier in the degree program. EVSS 681 requires students to apply these areas to a case study.</td>
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<tr>
<td>7. Are other Departments affected by this course?</td>
<td>(Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No</td>
</tr>
<tr>
<td>8. Is this course part of joint program?</td>
<td>Yes No If &quot;Yes&quot;, what institution? MUSC</td>
</tr>
<tr>
<td>Will the other institution use the same course number and title?</td>
<td>Yes No If &quot;No&quot; what will be the course number and title at the other school?</td>
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<tr>
<td>9. Method of teaching:</td>
<td>Introductory lectures followed by independent study by the students under faculty supervision, capped by oral, poster, and written presentation by the student.</td>
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OVER
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course:

NONE

(b) Address potential shifts in staffing of the departments as it relates to the offering if this course. 
(Note: If more space is needed, attach additional sheets to this form.)

NONE. Faculty have already been hired by MUSC and the University for this program.

11. Requirements for additional resources made necessary by this course:
   (a) Staff None; faculty have already been hired by MUSC and the University.
   (b) Budget None; faculty have already been hired by MUSC and the University.
   (c) Library Faculty will search out needed documents, and will place these on reserve in the library.
   (Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory). Syllabus is attached.

REVIEW / APPROVAL PROCESS

13. Signature of Graduate Program Director: ________________________ Date submitted: 11/14/95
14. Signature of Department Chair: ________________________ Date approved 11/14/95
15. Signature of School's Dean: ________________________ Date approved 11/14/95
16. Signature of Budget Director, Business Affairs Office: _______ Date reviewed: 11/14/95
17. Signature of Chair of Faculty Committee on Graduate and Continuing Education: ________________________ Date approved 2/19/96
18. Signature of Chair of Graduate Council: ________________________ Date approved: __________
19. Signature of Faculty Senate Secretary: ________________________ Date approved: __________

Completed forms should be sent by the Graduate Studies Office to the following:

1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course fee structure in SIS)
5. Academic Affairs Office

This form was last revised November 16, 1994 and replaces all others.
EVSS 681  CAPSTONE SEMINAR        SPRING 1996

WHEN/WHERE:  4:30-5:30pm MW in Room 126 of the Science Center; University of Charleston

INSTRUCTORS: B. Lee Lindner, Pam Morris, Tony Artuso, Nicholas Lawryk, June Mirecki, and Eberhard Voit

OFFICE: Room 143, Science Center; University of Charleston (Lindner) and Room 224, Basic Science Building, MUSC (Morris)

PHONE: 953-8288 (Office; Lindner) 792-8259 (Office, Morris)

EMAIL: Lindnerb@cofc.edu; Pam_Morris@smtpgw.musc.edu

OFFICE HOURS:  1:00-2:00pm MWF; Other times by appointment.

SITE: Changes every year. For 1996: Koppers Co. Inc. This site is an abandoned wood-treating facility located in North Charleston, and is now a superfund site. Principal contaminants on-site include lead and arsenic in soils and non-aqueous liquids in ground water. Because this site is located in an urban area, there are potential risks and impacts to the community of North Charleston and to the natural resources of the Ashley and Cooper Rivers.

GRADING POLICY:

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<th>Component</th>
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<tr>
<td>Status Reports</td>
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<td>Paper</td>
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<tr>
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<td>Presentation</td>
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ATTENDANCE POLICY: Students are required to attend class. During the first two weeks, lectures and a site visit are scheduled. During the remainder of the semester, students are expected to meet with an appropriate faculty member weekly to develop and execute the proposed project.

CATALOG DESCRIPTION: The capstone seminar provides an opportunity for students to synthesize concepts in scientific, policy and risk assessment disciplines, and to apply these concepts to solve a problem presented by the faculty. Students will define a semester-long project, which culminates in oral and written presentations.

PREREQUISITES: EVSS 680.

GOALS/OBJECTIVES:

1. Apply knowledge obtained in earlier coursework.
2. Provide experience in written and oral presentations.
3. Develop independent thinking and analysis.
4. Prepare students for entry into the job market.

APPROXIMATE TIMELINE:

- Weeks 1 and 2: Introductory Lectures and Site Visits.
- Weeks 3 and 4: Students review material and propose a project.
- Weeks 5 to 12: Students provide weekly status reports.
- Weeks 13 to 14: Oral and poster presentations.
UNIVERSITY OF CHARLESTON, S.C.
Faculty Committee on Graduate and Continuing Education
New Graduate Course Proposal

1. Department: Public Administration

2. Course number and title: PUBA 650 The Essential Elements of Non Profit Administration
   Number of credits: 3
   Total hrs/week: 3 Lectures: 3 Lab: ___

3. Course will be offered first: Fall 1995

4. Catalog description (please limit to 50 words): Orients students to the history, values and issues of the third sector in American society; and to the leadership and management challenges peculiar to the administration of nonprofit organizations. The latter include board relations; fundraising; program advocacy and lobbying; legal frameworks; human resource management in volunteer settings; financial management; and grants administration.

5. Prerequisites (or other restrictions): Graduate standing. (Completion of at least one semester in MPA program preferred.)

6. Rationale/justification for course (consider the following issues): (Note: If more space is needed, attach additional sheets to this form.)
   
   (a) What are the goals and objectives of the course? At least half of the students in the MPA program are currently in nonprofit organization careers, or enter such careers upon graduation. While there are important common ingredients with administration in the traditional public sector, some of the most crucial management and leadership tasks in nonprofit organizations are unique. Current courses offer no preparation for meeting the unique challenges confronted in the nonprofit sector.

   (b) How does this course support the mission statement of the department and the organizing principles of the graduate program? At present, PUBA has a Grants Administration (PUBA 724) course which has too narrow a focus and is to be dropped from the curriculum. This course will expand that course by examining in detail the role of nonprofit organizations in the United States.

7. Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)
   NO

8. Is this course part of joint program? X Yes No If "Yes", what institution? U.S.C.
   Will the other institution use the same course number and title? X Yes No If "No", what will be the course number and title at the other school? curriculums are separate


OVER
10. (a) Address potential enrollment pattern shifts in the department or University-wide as it relates to the offering of this course: Course is an elective course and will expand and incorporate an existing course (Grants Administration PUBA 724)

(b) Address potential shifts in staffing of the departments as it relates to the offering of this course.
(Note: If more space is needed, attach additional sheets to this form.)

None. Staff member in Institute for Public Affairs and Policy Studies will teach the course.

11. Requirements for additional resources made necessary by this course:
(a) Staff None

(b) Budget None

(c) Library None

(Note: Course requiring additional resources will need special justification.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

REVIEW / APPROVAL PROCESS

13. Signature of Graduate Program Director:  Date submitted: 4/10/95

14. Signature of Department Chair:  Date approved: 4/16/95

15. Signature of School's Dean:  Date approved: 4/1/95

16. Signature of Budget Director:  Date reviewed: 4/20/95
Business Affairs Office:

17. Signature of Chair of Faculty Committee on Graduate and Continuing Education:  Date approved: 4/14/95

18. Signature of Chair of Graduate Council:  Date approved: 4/14/95

19. Signature of Faculty Senate Secretary:  Date approved: 4/14/95

Completed forms should be sent by the Graduate Studies Office to the following:

1. Registrar (for entering course in SIS course inventory)
2. Department Chair
3. Graduate Program Director
4. Business Affairs Office (for establishing course fee structure in SIS)
5. Academic Affairs Office

This form was last revised November 16, 1994 and replaces all others.
PUBA 502: THE ESSENTIAL ELEMENTS OF NONPROFIT ADMINISTRATION

INSTRUCTOR:
Edgar L. Barnett

TIME AND PLACE:
Wednesday: 7pm - 9:45pm
ECTR Rm 112

COURSE DESCRIPTION:

This is an elective offered to those MPA students interested in pursuing a career in the nonprofit field, or those interested in learning about the responsibilities and challenges peculiar to nonprofit leadership and management. The course will be a survey of all of the topics that are considered most important and unique to those involved in the nonprofit environment. Key among those topics are the role of philanthropy and the third sector in American society; relations between boards of directors and executive management; resource development and fundraising; program advocacy, promotion, lobbying, and marketing; the legal framework of nonprofit organizations; and human resource management in a volunteer setting. At least two class sessions will be devoted to grant proposal development and writing.

COURSE TEXTS:


Other Selected Readings on specific topics. (See attached listing of available sources at C of C Library, plus two new journal holdings: "Nonprofit and Voluntary Sector Quarterly" and "Nonprofit Management and Leadership").

MODE OF INSTRUCTION:

Instruction will be primarily lecture. Since this is a course on a topic area not addressed in any other coursework, an added degree of non-passive learning will be imposed. This will include some case analysis, and more extensive library research and class presentation in order to become intimately familiar with available sources on the subject.

COURSE REQUIREMENTS:

In-class presentations / contributions: 20%
Research Papers 40%
Mid-Term and Final Exams 40%
CLASS SCHEDULE  
(TENTATIVE)

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<tr>
<th>SESSION</th>
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<th>STUDY TOPIC AND ASSIGNMENTS</th>
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<td>Introduction, Overview of the Field of Study</td>
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<td>#2</td>
<td>Aug 31</td>
<td>History of Philanthropy and the Nonprofit Sector</td>
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<td>Philosophical, Ethical and Value Issues.</td>
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<td>Entrepreneurship, Marketing, Promotion, Lobbying</td>
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<td>#5</td>
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<td>#6</td>
<td>Sep 28</td>
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<td>#7</td>
<td>Oct 5</td>
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<td>#8</td>
<td>Oct 12</td>
<td>Elements of Successful Grant Proposals / Writing</td>
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<td>#9</td>
<td>Oct 19</td>
<td>Analysis of Student Grant Proposals</td>
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<td>Governing Boards' Operations</td>
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<td>#11</td>
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<td>#15</td>
<td>Nov 30</td>
<td>Evaluation, Accountability, Course Summation</td>
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<td>Final Exam</td>
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<td>Grades Due</td>
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Grades Due: Dec 14
MEMORANDUM

March 1, 1996

To: The Faculty

From: Bishop Hunt,
Faculty Secretary

About: Meeting

The seventh regular meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, March 12 --right after the Spring vacation -- in Maybank 100.

Agenda

Speaker’s Report

PROPOSED CHANGE IN THE BY-LAWS: procedures for replacing senators during second year of their term

Curriculum Committee

Faculty Welfare Committee: bicycle traffic on campus

Creation of an Ad Hoc Committee on General Education

Constituents’ Concerns

Remaining Scheduled Meetings for the Spring Term, 1996

Faculty Senate: Tuesday, March 12, April 2 (Maybank 100)

Full Faculty: Monday, April 22 (Recital Hall, Simons Center for the Arts)
To: The Senate

From: The Committee on By-Laws (John Newell, Jack Parson, Herb Silverman (Chair))

Re: Proposed By-Laws Change

At the February Senate meeting, the Committee on Nominations and Elections proposed the following change to be appended to Article IV, Section 2F:

In the event that an at-large Senator needs to be replaced and the time remaining in the Senator's term is less than one academic year, the replacement is selected as follows. The Committee on Nominations provides a slate of at least two candidates to the faculty, allowing for further nominations from the faculty. The Senate then elects the replacement by written ballot.

The Committee on By-Laws recommends the following revised version, which clarifies a procedure:

If an at-large Senator needs to be replaced in the second year of a term, the Senate will elect the replacement by written ballot. The Committee on Nominations will provide a slate of at least two candidates circulated to the faculty at least two weeks before the Senate meeting. Additional nominations from the faculty may be sent to the Chair of the Committee on Nominations at least seven days before the Senate meeting.
To: Faculty Senators

From: Trisha Folds-Bennett, Chair, Curriculum Committee

Date: March 1, 1996

Enclosed are several proposals that I, on behalf of the Curriculum Committee, will present for your consideration at the March 12 Senate meeting.

You should have the following proposals:

- English 90 course deletion
- MUSC 222 Special topics for Non-majors new course proposal
- Proposal to change math requirement for business majors from MATH 231 to MATH 104 or 216 (see addendum, dated 2/16/96, to original proposal, dated 2/19/96)
- BADM 330 (Advertising) prerequisite change
- School of Mathematics proposal to delete MATH 231
- Geology Department proposal to change math requirement from MATH 231 to MATH 216
- Computer Science Department proposal to change math requirement from MATH 231 to MATH 216

For information only: Philosophy Special Topics
Geology Special Topics

If you have any questions prior to the meeting, please call (3-5517) or e-mail (Bennettt@cofc.edu) me.
15 February 1996

TO: Bob Mignone

FROM: Susan Gurganus

RE: Proposal Regarding Bicycle Traffic On Campus

The Welfare Committee met today and endorsed the following proposal:

Members of the Faculty Welfare Committee, Student Affairs Committee, and Public Safety met on February 2 to discuss the issue of bicycle and pedestrian safety on campus. The group reviewed 42 comments from faculty members and the relevant Charleston City Codes. The problem is very serious. Pedestrians are hit every week by cyclists. Cyclists are running into other cyclists and vehicles. Pedestrians don’t always look both ways and often cross streets at any point, contributing to the problem. There are specific groups of pedestrians which seem to be the most at risk of being hit–children, elderhostel visitors, and hearing-impaired students and staff. Individuals exiting offices on St. Philip and Coming Streets are often hit by bicycles traveling in both directions on the sidewalks. Bicycles continue to be ridden on sidewalks in the central part of the campus. Areas around the exits of campus parking lots are especially problematic. The college should continue to encourage the use of bicycles as an alternative to increasing vehicular traffic, but safety issues have become critical. With the addition of the Southern Bell building and Bishop England, Calhoun Street will become even more congested.

Recommendations:

1. Bicycle rules should be given to students by Public Safety when they register bicycles. In addition, rules should be printed in the student newspaper once a semester and posted in prominent locations around campus. These include:
   --bicycles must be registered
   --bicycles cannot be ridden on sidewalks
   --parked bicycles cannot obstruct pedestrian traffic
   --bicycles must follow the same rules on the streets as motor vehicles
      (e.g., one-way travel, stop lights and stop signs, turn signals)

2. These rules should be enforced by Public Safety.

3. Make designated bicycle lanes on St. Philip Street, George Street, and Coming Street (eliminating parking on Coming Street between Wentworth and Calhoun).

4. A crosswalk should be added between the Long Building and the Education Center at Liberty Street.

5. Reduce the speed limit on Calhoun Street (from 30mph to 25 mph) in the college area between the hours of 7:30 and 4:30.

6. Close George Street (between St. Philip and Coming) and St. Philip Street (between Calhoun and Wentworth) to vehicular traffic during the hours of 7:30 to 4:30.
Proposal to the Faculty Senate
For the Creation of an Ad Hoc Committee to Review the Current State of
General Education at the College of Charleston

Request

Representing the General Education Discussion Group, John Newell and Lynne Ford request that an "Ad Hoc Committee to Review the Current State of General Education" be formed by the Senate in order to facilitate a campus-wide discussion regarding general education at the College of Charleston.

Rationale

There has been no comprehensive review of the general education curriculum and structure in 25 years. In the intervening years, goals and objectives were established for general education without broad campus-wide discussion. These goals and objectives have become the benchmarks for assessment and new course development although many faculty remain unaware that such goals and objectives exist. Three standing committees share jurisdiction with individual departments over general education: Academic Planning, Curriculum, and Assessment. None of the three committees have as their primary responsibility review of the general education curriculum and all three committees are burdened with specific duties which may make them reactive to specific proposals rather than capable of initiating a comprehensive review. While Academic Planning is most clearly charged with long-term planning, their specific duties relate to consideration of new programs and goals advocated by others in light of budgetary constraints and existing programs.

Several factors make this the appropriate time for the campus community to undertake a review of General Education. In the Spring of 1993, four faculty members attended an AAC&U-sponsored conference on General Education at the request of the Provost. Upon returning to campus, a General Education Discussion Group was formed to examine the current state of General Education at the College in light of information gathered at the conference. To expand the discussion, a campus-wide Forum on General Education was held August 15-16, 1995, and over 120 faculty, staff, and students participated. The purpose of the Forum was to use the AAC&U publication Strong Foundations to assess our current efforts in light of twelve principles for effective general education programs. While the purpose of the Forum was not to consider specific changes to the curriculum, many important general and specific recommendations were generated through small group discussions that should become the basis for future campus-wide debate. Meanwhile, the SACs Self-Study has generated recommendations that bear directly on the General Education curriculum and their report suggests that the "General Education Committee" consider those recommendations. At the Forum and within the SACs discussions there has been considerable support for the formation of some type of committee. Following the Forum, the General Education Discussion Group solicited materials from other institutions that had undertaken comprehensive reviews of their own general studies requirements. The Group came to the conclusion that to institute a standing committee at this point in the process of review would be premature since it seemed to affirm the existing structure and content of general education rather than encourage a wide-ranging open examination that may include recommendations for change. This proposal calls for an open discussion of general education at the College of Charleston to take place. At the conclusion of the review process, a decision should be made as to the necessity of a standing General Education Committee for long-term review and maintenance.
Composition

Seventeen (17) members in total: Eight faculty appointed by the Senate (two faculty to be chosen from the following Schools: Humanities and Social Sciences and Math and Science. One faculty member to be chosen from each of the Schools of the Arts, Education, and Business and Economics; three faculty serving ex officio as Chairs of the Academic Planning, Curriculum, and Assessment committees); the Deans of Humanities and Social Sciences and Math and Science; three representatives from the following administrative offices, serving ex officio: Academic Affairs, Student Affairs, and Enrollment Management; and two students. The committee shall be chaired by one or more tenure-track, roster faculty.

Duties

(1) Convene and facilitate a three-year campus-wide discussion on General Education to be completed by August of 1999. The Ad Hoc Committee will invite faculty, staff and students to form "Inquiry Groups" in which to consider and discuss the major questions identified at the 1995 Forum and through the SACs Self Study. The Inquiry Groups will be made up of no more than 12 people, the majority of which are faculty, and meet regularly over a six to twelve-month period to gather information and hold small-group discussions on the question presented. At the conclusion of the discussion period, all Inquiry Groups and other interested faculty will convene a Forum where Inquiry Groups will report the results of their research, hold general discussions, and make recommendations. If there is clear consensus among the Inquiry Groups, the Ad Hoc Committee on General Education will then forward recommendations to the appropriate standing committees for consideration and eventual action by the Faculty Senate. Based on the Inquiry Group reports and the opinions of Forum participants, the Ad Hoc Committee will identify the next stage of questions and the cycle will begin again. General education goals and objectives will be taken up first so that they might be examined by the campus community and either affirmed or modified by the faculty. Once we share goals and objectives for the General Education program, the Inquiry Groups can begin to examine the way in which general education courses are organized for delivery and specific course requirements in light of the goals and mission of the College of Charleston. In the final year, the Inquiry Groups might consider the role of individual departments, assessment, and the overall liberal arts experience for students and faculty at the College.

(2) Report any recommendations that might be generated through consensus at annual General Education Forums to appropriate Standing Committees for consideration and action by the Faculty Senate.

(3) Make a report annually to the Faculty Senate and a full report to the Faculty Senate and full faculty by the end of three years (1999) at which time the faculty will be asked to affirm or modify the General Education curriculum.

(4) At the end of three years, make a recommendation to the Faculty Senate as to the need for a standing General Education Committee.
Memorandum

To: All Presidents of Four-Year Public Institutions
From: Fred R. Sheheen

Implementation of the Provisions of Act 629 (1988) on Remedial Education

At its meeting on November 2, 1995, the Commission on Higher Education approved proposed recommendations on remedial education and adopted them as the final provisions, procedures, and requirements for Act 629 on remedial education. A copy of the staff report and the recommendations which were adopted as policy are enclosed for sharing within your institution.

In transmitting this report to you, I draw your attention in particular to the report's tenth recommendation, which reads as follows:

A plan for the orderly phasing-out of all remedial courses shall be filed by each public four-year institution with the Commission by June 30, 1996. Each of these plans shall contain a timetable for the coursework to be eliminated and the dates by which this will be accomplished. These plans shall also include all other elements necessary for orderly elimination of these offerings and the development of an interinstitutional agreement with a nearby two-year public institution to supply whatever remedial coursework students at the four-year institution may need. The phase-outs shall be in accord with the following timetable, which recognizes that some institutions will require longer than others owing to factors such as the numbers of students currently served and previous experience with agreements with neighboring institutions.

The list of affected four-year institutions and the dates established
for their complete elimination of all teaching of remedial education is shown below:

USC-Columbia, Clemson, The Citadel
College of Charleston, Winthrop: Fall 1997

USC-Aiken, Coastal Carolina Fall 1999

Francis Marion, Lander, SC State,
USC-Spartanburg Fall 2002

The Commission recognizes that institutional phase-out plans will vary in complexity, depending upon the numbers of students served in remediation and other factors. Please call upon either Dr. Gail Morrison, Associate Commissioner for Academic Affairs, or Dr. Lynn Kelley of her staff with any questions which you might have in the development of these plans. We look forward to working with you to assure a successful outcome to this process.

Enclosure

/jtw
cc: Members, Advisory Committee on Academic Programs
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: English and Communication

2. Course Number and Title: English 90: Basic Writing Skills

3. Course will be deleted effective: June 1, 1996

4. Reason for Deleting the Course:

   The Commission on Higher Education has decreed that the College of Charleston may not offer remedial courses after summer 1997.

6. Date Approved by the Department: 1/16/96  Date Submitted: 1/1/96

7. Signature of Department Chair: [Signature]
The Faculty Committee on Curriculum and Academic Planning has adopted the Association of American Colleges and Universities' framework for program review. (A copy of the booklet Program Review and Educational Quality in the Major has been provided with this packet) When examining the rationale and justification presented for courses within the major and outside the major (electives/general degree requirements), the Committee's deliberations will be focused by the questions listed 6, 7, 8 and 9. A number of departments at the College have participated in a self-examination known as "reforming the major." Names of department chairs willing to serve as resources may be obtained from the deans of the School of Humanities and Social Sciences and Sciences and Mathematics.

1. Department: Music

2. Course number and title: MUSC 222 Special Topics for Non-Majors
   - Number of Credits: 3
   - Total hrs/week: 3
   - Lecture: 3
   - Lab: N/A

3. Course will be offered first: Fall 1996. It will be offered at least once a school year.

4. Catalog description (please limit to 50 words):
   Music 222 is a series of special topics courses designed for the non-music major. Course topics will change from semester to semester and will remain fairly broad as not to require an extensive background in music. The ability to read music is not required. Like Music 131, Music 222 is accepted as a Humanities credit.

5. Prerequisites (or other restrictions): MUSC 131 or permission of the Instructor.

6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course?
   Music 222 will give all college students the opportunity to take courses more specialized than Music 131 (Music Appreciation). This will be particularly useful to students who enjoyed Music Appreciation and wish to take another music course without becoming a music major. It will also provide students with another Humanities credit option.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?
   Music 222 fits in well with both the mission of the Music Department and the overall mission of the College in that it creates more opportunities for students within the framework of a comprehensive liberal arts education.
7. For courses in the major, how does the course enhance the beginning, middle or end of the major? N/A

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkage with other disciplines?

   The variety of subject topics taught in the different Music 222 sections greatly increases the choices offered to non-majors. This is truly in keeping with the College’s liberal arts tradition.

(b) Are other Departments affected by this course. (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) N/A

9. Method of teaching:
   Teaching methods will vary from semester to semester depending on the subject matter and professor.

10. (a) Address potential enrollment pattern shifts in the department or college-wide as it relates to the offering of this course.

     Some students who might ordinarily enroll in Music 131 (Music Appreciation) may choose to take Music 222 instead.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

     Music 222 should not greatly interfere with the department’s staffing. In order to staff this course the Music Department may offer one less Music Appreciation course during semesters that include Music 222.

11. Requirements for additional resources made necessary by this course:
    (a) Staff N/A
    (b) Budget N/A
    (c) Library N/A

(Note: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).
13. Signature of Department Chair:  

[Signature]

Date submitted:  

[Date]

14. Signature of School's Dean:  

[Signature]

Date:  

[Date]

15. Signature of Budget Director,  
   Business Affairs Official:  

Date reviewed:  


16. Signature of Curriculum  
   Committee Chair:  

Date approved:  


17. Signature of Faculty  
   Senate Secretary:  

Date approved by Senate:  

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair

2. Business Affairs Office (for establishing course fee structure in SIS)

3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)

4. Academic Affairs Office (Attn: Beth Murphy)

5. Undergraduate Studies (SNAP, ON COURSE)

(If an additional diskette for word processing of this form is desired, please send a blank diskette to Chivon Jenkins, Undergraduate Studies. This form last revised April 24, 1994 and replaces all others.)
The Roots of Lowcountry Music

Music 222

Teacher: Dr. Edward Hart
Office # - 203· Simons Center
Office Phone - 3-6532
Office Hours - M/W/F 9-10

Course Description

The Roots of Lowcountry Music will examine the musical relationship between West Africa and the Lowcountry of South Carolina. The course will deal primarily with the evolution of traditional West African music into the various Lowcountry musical traditions including Gullah Spirituals, work songs, jazz, and Gospel. The course will also include live demonstrations, field trips, and guest lecturers. Lectures will concentrate not only on music, but also on the many external influential factors such as the slave trade, the Caribbean connection, plantation life, religion, mysticism, the War Between the States, and Reconstruction.

The Roots of Lowcountry Music will focus on music from five separate time periods:

I. Africa - before the slave trade
II. Transition from Africa to America - slave trade
III. Slavery
IV. Reconstruction
V. Twentieth Century
Schedule

Week 1-2
I. Africa - before the slave trade
The musical traditions of West Africa will be studied during the first part of the semester to establish a necessary background. Topics will include West African performance practices, song tradition, ritual music, religious music, and traditional instruments. Students will also listen to various recordings of traditional West African music. A guest lecturer and demonstration may be used to teach the class about African instruments.

Week 3
II. Transition from Africa to America - slave trade
The history of the slave trade will be discussed in order to understand which musical traditions and actual music survived this displacement. The musical relationship between the Caribbean and the Lowcountry will also be examined.

Week 4-7
III. Slavery
The bulk of the course will concentrate on music during the time of slavery. This will include a thorough examination of the Gullah culture including the dialect, role of religion, spirituals, mysticism and superstition, and story telling. The role and development of music in plantation life will also be discussed (ie. work songs). Field trips to some of the Sea Islands, live performances of Gullah spirituals, recordings of spoken Gullah, and demonstrations of traditional Gullah crafts will be used.
Week 8-9

IV. Reconstruction

The effect that freedom had on established and emerging musical traditions will be examined during this part of the semester. Influential factors include the establishment of new churches and religious practices (Gospel music), the new lack of geographical isolation, a new relationship with the North, the changing political climate, urban living, and the economy.

Week 10-12

V. Twentieth Century

The development of jazz in the Lowcountry will be examined at the end of semester. Special attention will be given to the music and musicians produced by the Jenkins Orphanage. Recordings of the Jenkins Orphanage Band will be used in addition to a field trip to either the Avery Research Center or "Old" Jenkins Orphanage on Franklin Street. The final goal of the course will be to determine which musical traditions and practices of the present day Lowcountry are directly related to the traditional music of West Africa.

Grading -

There will be two tests and an "in class" presentation. The "in class" presentations will be done during the last two weeks of class.

Test 1 - %25
Test 2 - %25
Project - %50
MEMORANDUM

TO: Trisha Folds-Bennett, Chair, Curriculum Committee
FROM: William Golightly, Chair, Mathematics Department
DATE: January 17, 1996
RE: School of Business Proposal to Require Math 104

The Mathematics Department does not object to the proposal of the School of Business to require Math 104 instead of Math 231. The impact on the Mathematics Department will be a reduction in the number of students we teach since some business majors take both Math 104 and Math 231. This is especially true of transfer students who transfer in a course equivalent to Math 104 then have to take Math 231 to obtain the computer applications needed now as a prerequisite to B.A. 232.

If this change is approved, the Mathematics Department will delete Math 231. This change will affect the Computer Science Department and the Geology Department since they have majors that require Math 231. I have talked to both Dr. Katuna and Dr. Pothering and they said that they can require Math 216 instead of Math 231 provided there are additional sections of Math 216 offered to help eliminate conflicts. We currently offer 11 sections of Math 231 each year, five in each of the fall and spring and one in the summer. We offer one section of Math 216 in each of the fall and spring. There could be a net reduction of one course each fall and spring because of the number of students who take both Math 104 and 231, so we may be able to replace five sections of Math 231 with three additional sections of Math 104 and one additional section of Math 216. We would probably replace the Math 231 in the summer with a section of Math 216.

cc: Gordon Jones, Dean, School of Sciences and Mathematics
    Rhonda Mack, Chair, Department of Management and Marketing
    Michael Katuna, Chair, Department of Geology
    George Pothering, Chair, Department of Computer Science
February 16, 1996

TO: Trish Folds-Bennett
    Psychology Dept.

FROM: Rhonda Mack

SUBJECT: "Friendly" Modification to Math Requirement Proposal

As per my phone message, I became aware of a problem with our math requirement proposal as it would relate to honors students. Honors students must take MATH 120 and an additional 200 level math course. I have talked with Rose Hamm and met with the School of Business faculty. We would like to make a friendly modification to our proposal which you are considering presently at the College Curriculum Committee level.

Math 104, in addition to Math 216 (Introduction to Probability and Statistics) will be accepted as the "new" business major math requirement. This (these) courses would replace Math 231 as per our request. This change has been voted on and passed by the faculty in the School.

Please let me know if I can assist further. I will be attending your meeting this next Wednesday.
January 19, 1996

TO: Trisha Folds-Bennett, Chair, Curriculum Committee
FROM: Rhonda Mack, Chair, Management & Marketing Dept.
SUBJECT: New Course Proposals and Prerequisite Changes

Attached for your consideration are five new course proposals, most of which have been taught previously as selected topics and now requiring new course approval. In addition, we are requesting two prerequisite changes as follows:

1) Change in Math Requirement for Business Major.

We would like to change the math prerequisites for the major from MATH 105 (Calculus for Business and Social Sciences) and MATH 231 (Applied Statistics) to MATH 105 and MATH 104 (Elementary Statistics). This substitutes MATH 104 for MATH 231.

MATH 231 will be replaced by MATH 104 as a prerequisite for BADM 232. MATH 231 will be eliminated from BADM course listings where BADM 232 is required. (BADM 232 will assume the MATH 104 prerequisite, thus, it need not be stated.)

Math 105, a prerequisite for the eliminated Math 231, will remain a required course as it is now, and will remain a prerequisite for BADM 304. It will no longer be a prerequisite for BADM 300 or for BADM 232.

Course descriptions for MATH 104 and MATH 231 and BADM 232 are attached. The Department requests this change due to the overlap of MATH 231 and BADM 232. We feel that our students will receive all necessary statistical content from the MATH 104, 105 and BADM 232 combination. This will also assist students transferring to the College desiring a major in business administration (Currently, they often bring the MATH 104 equivalent subsequently requiring them to have three math courses to pursue the business major).

Attached is a memo from Dr. Golightly regarding how the Math Department would adjust to this curriculum change.

2) Adding BADM 302 (Basic Marketing) as a prerequisite for BADM 330 (Advertising)

We would like to add this prerequisite as soon as possible. Advertising requires the understanding of a large number of concepts which are taught in basic marketing. Faculty now teaching advertising have to begin the course with an introduction to basic marketing and continue basic concepts clarification throughout the
course. We are thus unable to cover the intended subject, advertising, adequately. All students who have advertising as an option for their major elective also have to take basic marketing, thus this is not adding an additional class to their program of study requirements. This prerequisite change will allow the advertising instructor to fully cover the necessary subject material. Most all schools of business offering an advertising course require basic marketing as a prerequisite. It would be the exception to not have this prerequisite.

Both of these requests have been approved by the School of Business Curriculum Committee and faculty.

Howardudd, Dean
School of Business and Economics
MEMORANDUM

TO: Trisha Folds-Bennett, Chairman of the Curriculum Committee
FROM: Michael P. Katuna, Chairman, Department of Geology
SUBJECT: Deletion of Math 231

I am aware of the recommendation of the Math Department to delete Math 231 from its curriculum. As you are aware this course is an option for students completing a B.S. degree in geology. We would not be opposed to this recommendation change since we would simply substitute Math 216 for Math 231 in our requirements. In fact, a committee of faculty members from the Math, Biology, Geology and Computer Science departments are currently looking into strengthening and revising Math 216 to make it more applicable for Math and Science majors.

jen

cc: Dr. Bill Golightly, Chair, Math Department
December 7, 1995

TO: Trishia Folds-Bennett, Chair, Curriculum Committee
FROM: Robert L. Nusbaum, Geology Department
RE: Special Topics course

Yesterday, I received a note from Mike Katuna suggesting that I provide the Curriculum Committee with a course description for a Special Topics course which I will teach for the first time next semester. Please let me know if I need to provide additional information and many thanks to all members of the Committee for their hours of valuable service.

GEOL 290.001 Geology and Development of Modern Africa
Offering: Spring semester 1996
Credits: 3
Minor credit: 3 credits toward the African Studies Minor
Prerequisites: none
Targeted students: majors and nonmajors

The course is structured around a series of geologic topics that have direct relevance to historical, cultural, political, or economic issues in Africa. Topics will include past and present fluvial processes in the Nile River System, geohydrology and climate change in the Sahara and Sahel, the structure and evolution of the East African Rift System, and mineral resources in southern and western Africa.
MEMORANDUM

To: Dr. Trisha Folds-Bennett, Chair
   Curriculum Committee

From: George Pothering, Chair
   Computer Science Department

Subject: Substitution of Requirements for B.S. degrees in Computer Science and Computer Information Systems

The Computer Science Department would like to replace the MATH 231 (Applied Statistics) requirement for its Bachelor of Science degrees in Computer Science and Computer Information Systems with a requirement of MATH 216 Introduction to Probability and Statistics.

Rationale: The School of Business Administration and Economics has a proposal before the Curriculum Committee to require MATH 104 (Elementary Statistics) for its Business Administration and Accounting majors instead of Math 231 (Applied Statistics). In order to meet effectively the increased demand for additional sections of MATH 104 it is our understanding that the Mathematics Department would like to discontinue MATH 231. Realizing that MATH 231 is a degree requirement in the programs noted above, the Mathematics Department inquired into the feasibility of computer science majors and computer information systems majors using MATH 216 instead of MATH 231. The Math Department has agreed to offer additional sections of MATH 216 in response to an increase in demand.

The Computer Science Department feels that MATH 216 would serve as an adequate replacement for MATH 231 and requests of the Curriculum Committee that if Mathematics' proposal to drop MATH 231 that it simultaneously approve our request to replace it with MATH 216 in the requirements for the two B.S. programs noted.

January 29, 1996

[Signature]
MEMORANDUM

TO: Trisha Folds-Bennett, Chair, Curriculum Committee

FROM: Hugh Wilder, Chair, Department of Philosophy & Religious Studies

RE: Special Topics Courses

The following special topics courses in Philosophy and Religious Studies will be offered during the next year. Each is being offered for the first time.

Spring 1996

PHIL 298: Special Topics: Philosophy and Race
This course is divided into two parts. During the first part of the semester, the class will read about and discuss the questions, “What is race, and what is racism?” The answers to these questions are multifaceted, since race has personal, historical, economic, scientific and cultural dimensions. In the second part of the semester we will engage specific race-related issues in the United States, such as assimilation vs. separatism, affirmative action, connections between racism and sexism, and capital punishment.

RELS 298: Special Topics: Buddhist Texts
This course examines topics of good and evil through readings and discussion of Buddhist texts. These include biographical accounts of exemplary figures in the history of Buddhism and doctrinal presentations of the philosophical and psychological principles upon which they base their lives.

RELS 298: Special Topics: Jewish-Christian Encounters in the Middle Ages
Are the roots of anti-Semitism found in the Middle Ages? This course will set the Jewish-Christian relations in the Middle Ages in a historical perspective. We will look at the Carolingian world (when Christianity actually felt threatened by the success of Judaism), the twelfth and thirteenth centuries (the age of religious disputations and the condemnation of the Talmud), and finally the expulsion of the Jews from most Western European countries. By studying this past, we may also gain a better understanding of present-day Judaism, Christianity, and the difficulties in the interreligious dialogue. Also listed as JWST 300.
Maymester 1996

RELS 298: Special Topics: Religion and Film
This course will examine a variety of films as reflections of modern views of religious structures and religious themes. The art of the cinema provides an ideal medium for making rhetorical arguments in non-verbal or semi-verbal ways that are easily accessible to a wide audience. In this course we will use rhetorical analysis to understand how themes such as the nature of evil, the meaning of life, images of the sacred, spiritual views of sexuality and the nature of death are addressed in film.

Fall 1996

RELS 298: Special Topics: Popular Piety in the Middle Ages
This course will examine various aspects of popular Christian belief and practice in the period c. 500-1500, making extensive use of primary sources (chronicles, saints’ lives, miracle collections, etc.). Topics covered will include: the cult of the saints; the crusades; pilgrimage; asceticism; millenarianism.

PHIL 298: Special Topics: Jewish Thought
This course will examine some prominent philosophers and theologians, including Maimonides, Buber, and Heschel, and their reflections on themes central to the Jewish tradition. No familiarity with Judaism will be presupposed. Also listed as RELS 298 and JWST 300.
MEMORANDUM

January 25 1996

To: The Faculty

From: Bishop Hunt,
Faculty Secretary

About: Meeting

The sixth regular meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, February 6, in Maybank 100.

Agenda

Speaker’s Report

Committee on Nominations and Elections: PROPOSED BY-LAWS CHANGE

Append to Article IV, Section 2F:

In the event that an at-large Senator needs to be replaced and the time remaining in the Senator’s term is less than one academic year, the replacement is selected as follows. The Committee on Nominations provides a slate of at least two candidates to the faculty, allowing for further nominations from the faculty. The Senate then elects the replacement by written ballot.

Constituents’ Concerns

Remaining Scheduled Meetings for the Spring Term, 1996

Faculty Senate: Tuesday, February 6, March 12, April 2 (Maybank 100)

Full Faculty: Monday, April 22 (Recital Hall, Simons Center for the Arts)
MEMORANDUM

January 4, 1996

To: The Faculty

From: Bishop Hunt,
Faculty Secretary

About: Meeting

The fifth regular meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, January 16, in Maybank 100.

Agenda

Speaker’s Report

Academic Standards Committee:

--Requiring minimum credit at the College to earn a minor

Curriculum Committee:

--Minor and Concentration in Astronomy

--Chemistry (course changes, new course, requirement changes)

--Physics (new course)

--EDFS (course changes)

--ARTH (new course)

Constituents’ Concerns

Scheduled Meetings for the Spring Term, 1996

Faculty Senate: Tuesdays, January 16, February 6, March 12, April 2 (Maybank 100)

Full Faculty: Monday, April 22 (Recital Hall, Simons Center for the Arts)
Proposal to the Faculty Senate  
Re: Requiring minimum credit at the College to earn a minor.

The Faculty Committee on Academic Standards, Admissions and Financial Aid proposes that the following modification be made to the requirements for earning a minor at the College of Charleston.

In addition to the present requirements as set out on p.108 of the Undergraduate Bulletin, and, specifically, after the following sentence on p.108 of the bulletin:

"Either program must include a minimum of six three-hour or four-hour courses selected from a formally designated group."

we propose that there be inserted the following requirement:

"At least 9 hours in the minor at the 200 level or above must be earned at the College of Charleston."

Rationale

Recently a transfer student petitioned the Academic Standards Committee to be awarded a minor based entirely on transfer credit. Since the Undergraduate Bulletin is silent on this issue and based on legal advice, the committee, albeit reluctantly, approved this petition. The Academic Standards Committee feels that, as with the major, if a student is to be credited with a minor from the College of Charleston, then a significant portion of the work for that minor should have been done at the College.

The choice of nine hours is based on the following calculation. A major program requires a minimum of 24 hours and, in theory, every student (with the exception of a business major) can complete a major with a maximum of 36 hours. Of these hours, at least 12 at the 200 level or above must be completed at the College. This is equivalent to between $\frac{1}{3}$ (of 36 hours) and $\frac{1}{2}$ (of 24 hours) of the major requirements. A minor is at least 18 hours and may require 24 hours. 9 hours is approximately that same fraction of these minor requirements.

For your reference, attached is a photocopy of pages 107 and 108 of the current Undergraduate Bulletin.
minimum grade point average of 2.0 in all courses taken at the College (i.e., at least twice as many quality points as semester hours attempted).

It is ultimately the responsibility of the student to meet the requirements for graduation as listed above.

Courses numbered below the 100 level carry credit, but are not counted as part of the 122-hour minimum needed for the degree nor do they count toward the GPA. No more than eight hours of Physical Education and Health (PEHD) 100-level courses may be counted as part of this minimum. The senior year of work for the degree must be completed in residence at the College of Charleston. However, candidates who have taken more than 60 credit hours at the College of Charleston may complete up to seven, but not more than seven, of their final 37 hours at another institution, with prior permission of a dean in the Office of Undergraduate Studies and the chair of the department of their major.

Students with continuous enrollment have the option of fulfilling all the graduation requirements from the Undergraduate Bulletin under which they entered the College or all the requirements from any subsequent bulletin. Students who withdraw and then return to the College must follow the graduation requirements from the Undergraduate Bulletin under which they are re-admitted or any subsequent bulletin.

The Major Requirements. By the second semester of the sophomore year each student must declare a major through the office of the department of that major. Since the major department must advise the student concerning post-sophomore courses, declaration of major is necessary before the student can be enrolled as a junior. Failure to do so may result in a delay of graduation.

A major program requires at least 24 semester hours in one department. No major program, including interdepartmental programs, but excluding business administration and accounting due to accreditation requirements, requires more than 43 semester hours in the major area. Every department, except those within the School of Business and Economics, that offers a major requiring more than 36 hours also offers a major of not more than 36 hours for the student's choice. Within these minimum and maximum limitations each department specifies the number of hours in its major program or programs, and in some instances specifies the actual courses required. At least 12 hours in the major at the 200 level or above must be earned at the College of Charleston.

Students may complete a double major by fulfilling the requirements of two major programs. The double major will be listed on the student's transcript, but only one diploma will be awarded. If the two majors are in different degree categories, the student must choose to have printed on the diploma either the bachelor of arts or the bachelor of science degree.

Concentrations and Minors. A student may elect to pursue a program of study organized around a particular theme within the major discipline—a concentration—or outside the major discipline—a minor. Both concentrations and minors will be shown on the student's transcript. Either program must include a minimum of six three-hour or four-hour courses selected from a formally designated group. Successful completion of such a program of study requires a grade point average of at least 2.0 in the courses which comprise it. Credit may be received for up to two concentrations or minors, and courses used to satisfy the requirements of one may not be applied toward a second. These courses may be selected from a single department or from several, and interdisciplinary courses may be included. Students must enroll formally with the specific coordinator or department chair for each program in order to have the transcript reflect credit for work done in a concentration or minor.

Minimum Degree Requirements. For all undergraduate degrees, the total number of semester hours must include the following:

English: six semester hours: English 101 and 102. (A degree candidate must enroll in English 90, 101 or 102 each semester until the English requirement has been fulfilled.)

History: six semester hours: History 101 and 102, which must be taken in sequence.

Natural Science: eight semester hours: an introductory or higher sequence from one of the following: astronomy, biology, chemistry, geology, or physics, of which two semester hours must be earned in the accompanying laboratories.

Mathematics or Logic: six semester hours in either mathematics
To: Faculty Senators
From: Trisha Folds-Bennett, Chair, Curriculum Committee
Date: December 18, 1995

Enclosed are several proposals that I, on behalf of the Curriculum Committee, will present for your consideration at the January 16 Senate meeting.

You should have the following proposals:

✓ Minor and Concentration in Astronomy

✓ Chemistry course changes:
   new course: CHEM 441, CHEM 571
   requirement changes: CHEM 512L

✓ Physics new course:
   PHYS 105

✓ EDFS course changes:
   EDFS 326, EDFS 455

✓ ARTH new course:
   ART 265

If you have any questions prior to the meeting, please call (3-5517) or e-mail (Bennettt@cofc.edu) me.
Minor in Astronomy

Goals, Objectives, and Intended Outcomes of an Astronomy Minor

We will provide students with a broad-based program of study organized around a theme of astronomy. Our Physics 129/130 (astronomy) courses are among the most popular courses on campus, and many students have expressed an interest in a minor in this field. The College of Charleston has the strongest astronomy research and teaching faculty in the state, and needs to offer such a program to interested students in the state so they don't need to go to out-of-state colleges for programs in astronomy. After students have completed this program, they will have an excellent appreciation of the breadth of astronomy.

Relation Between Curriculum and Goals

We have selected 18 courses which all fall under the theme of astronomy and will demonstrate the breadth and variety of the sub-fields of astronomy to students. We have required all students to complete a one-year survey of astronomy course, either the Physics 129 and 130 or Honors Astronomy series for students who haven't taken calculus or the Physics 310 (Planetary Astronomy) and 311 (Stellar Astronomy and Astrophysics) series primarily for students who have taken calculus. Other courses are electives allowing students to explore the sub-fields of astronomy which most interest them.

Communication of the Goals to the Students

The astronomy minor and its goals will be mentioned and discussed with all students in the core courses. Interested students will be referred to the astronomy minor program director for further discussion about the minor and to set up a proper program of courses for each student appropriate to their major and career goals. A handout will be given which will cover every aspect of the minor, including goals.

Dependence of the Minor on Specific Courses

The minor is centered around the core courses. This should not be a problem because the Physics 129/130 series is so popular that multiple sections are currently offered at various times, and the series starts in both fall and spring semesters. The more advanced Physics 310/311 series will be offered every 2 years (assuming minimal student enrollment); however, in the case that a student has a problem with course availability, they may take Physics 129 and 130 and still achieve the goals and objectives of the minor. Remaining courses are all electives, which the student can select to accommodate course availability, student schedule time constraints, etc.

Depth and Breadth of the Program

While the theme of Astronomy is often considered by those outside the field as narrow, it is in fact quite broad, covering biology (especially in Physics 205, Intelligent Life in the Universe), geology (especially in Physics 310, Planetary Astronomy), chemistry (in the formation of the solar system and in interstellar gases), physics (especially in Physics 101/102 and 201/202, introductory physics), and philosophy and religion (especially in cosmology and the beginning of time). We believe students minoring in astronomy will be exposed to a wide variety of disciplines, which blends in well with the liberal education of the College of Charleston. We have designed the minor so that both students who have taken calculus and students who haven't taken calculus can be accommodated (8 of the 15 courses selected are algebra-based for students who haven't taken calculus).
Costs

300 and 400 level courses in the Physics and Astronomy Department are currently under-subscribed, so additional students will not present a problem. There will be some slight added pressure on the Math department, although this should be negligible. Those students interested in the track where calculus is not needed will not need math beyond the algebra they already have, and those interested in the calculus track will probably need to take the additional math beyond algebra for their majors anyway. There will be some added stress on the 100 level courses, but this will be negligible. Hence, the net cost to the College will be minor.

Justification

This year, the Department of Physics has been renamed the Department of Physics and Astronomy. With the addition in the past three years of several new astronomers, our College now has the strongest and broadest astronomy undergraduate department in the state (Bob Dukes, Bill Kubinec, Terry Richardson, and Harold Nations are all astronomers, and Lee Lindner has dabbled in Planetary Astronomy). Consistent with these changes, we propose a minor in Astronomy. Not only would this minor offer students a strong overview of the field (benefiting the students), it will also attract additional students into our other higher-level astronomy course offerings (currently all under-subscribed) and therefore increase our FTE (benefiting our department). The minor may even attract high school or transfer students who are considering other colleges to come to the College of Charleston instead.

Definition

We propose the following Catalog description (course titles are for review of this proposal only and will not be placed in the Catalog description): "A minor in astronomy shall consist of at least 6 courses, which must include 2 core courses and 4 elective courses. The core courses must consist of either Physics 129 and Physics 130 (with associated labs), Honors Astronomy, or Physics 310 and Physics 311. The elective courses can be chosen from Physics 101 (Introductory Physics), 102 (Introductory Physics), 201 (General Physics), 202 (General Physics), 205 (Intelligent Life in the Universe), 298 (Special Topics), 301 (Classical Mechanics), 306 (Physical Optics), 390 (Research), 399 (Tutorial), 412 (Special Topics), 413 (Astrophysics), 420 (Senior Research), and 499 (Bachelor's Essay) in addition to Physics 310 and 311 if they were not taken as core courses. A maximum of three courses may be at the 100 level. Physics 298, 390, 399, 412, 420 and 499 must involve astronomy. A minimum of 3 credit-hours of Physics 390 or 412 must be taken for these courses to count towards the minor. Students may not receive credit for both Physics 101 and 201, for both Physics 102 and 202, or for both Physics 129/130 and Honors Astronomy. Physics 101 and 102 must include associated laboratories. The courses must be approved by the student’s major advisor and the astronomy minor program director."
Course Selection

All of the elective classes chosen deal with astronomy or with material of great value to
astronomy. Note in particular the requirement of approval by the astronomy minor program
director. This allows us the flexibility to encourage students who have taken calculus to
concentrate on the calculus-based courses, while still allowing students who haven’t taken calculus
to get a broad background in astronomy (students are free to mix courses between tracks if they so
desire). [Several 129/130 students who have not taken calculus indicated a strong interest in this
minor when we mentioned this possibility.] The minor as proposed would have 2 “tracks;” one
primarily for students who haven’t taken calculus and the other primarily for students who have
taken calculus, with supervision by the minor program director. For example, a student who
hasn’t taken calculus could choose from 8 algebra-based courses (Physics 101, 102, 129, 130,
205, 310, 311, and 390). No matter which six classes were chosen, we feel a student who hasn’t
taken calculus has received a broad overview of astronomy, and we would have no problems with
awarding a minor in astronomy, especially since the College requires a minimum 2.0 GPA in the
courses which comprise the minor. Note also that a minimum of two 300 level courses are
required, so all students will be exposed to higher-level courses. A science major could choose
from 11 calculus-based courses (Physics 201/202, 298, 301, 306, 390, 399, 412, 413, 420, and
499) for the 4 electives needed, and may include some of the algebra-based courses. Note also that
having 18 courses in the minor eliminates the problem that many of these classes are currently
offered infrequently (e.g. Physics 205, 298, 310, 311, 399, 412, 413 and 499 are all offered
every two years at best). Also, note that Physics 101/102, 129/130, and 201/202 are offered every
year, which reduces the need to offer the other electives frequently. No new courses are required
for this minor, and hence no additional work for our faculty (other than the minor program
director).

Signature of Department Chair: __________________________ Date submitted: ____________
Signature of School’s Dean: ___________________________ Date: ____________
Signature of Curriculum Committee Chair: ________________ Date approved: __________
Signature of Faculty Senate Secretary: ______________________ Date approved: __________
Concentration in Astronomy for Physics majors

Goals, Objectives, and Intended Outcomes of an Astronomy Concentration

We will provide students with a broad-based program of study organized around a theme of astronomy. Astronomy is very popular among our majors, and many of our majors have expressed an interest in a concentration in this field. The College of Charleston has the strongest astronomy research and teaching faculty in the state, and needs to offer such a program to interested students in the state so they don’t need to go to out-of-state colleges for programs in astronomy. After students have completed this program, they will have an excellent appreciation of the breadth of astronomy.

Relation Between Curriculum and Goals

We have selected 14 courses which all fall under the theme of astronomy and will demonstrate the breadth and variety of the sub-fields of astronomy to students. We have required all students to complete a one-year survey of astronomy course, Physics 310 (Planetary Astronomy) and 311 (Stellar Astronomy and Astrophysics). (Physics 129 and 130 (astronomy), or, preferably, Honors Astronomy may be substituted with Department approval). Other courses are electives allowing students to explore the sub-fields of astronomy which most interest them.

Communication of the Goals to the Students

The astronomy concentration and its goals will be mentioned and discussed with all students in the core courses. Interested students will be referred to the astronomy minor program director for further discussion about the concentration and to set up a proper program of courses for each student appropriate to their career goals. A handout will be given which will cover every aspect of the concentration, including goals.

Dependence of the Concentration on Specific Courses

The concentration is centered around the core courses. The Physics 310/311 series will be offered every 2 years (assuming minimal student enrollment); however, in the case that a student has a problem with course availability, we will allow the substitution of Physics 129/130 (offered in multiple sections every year) or Honors Astronomy (offered every 2 years), and students should still achieve the goals and objectives of the concentration. Remaining courses are all electives, which the student can select to accommodate course availability, student schedule time constraints, etc.

Depth and Breadth of the Program

While the theme of Astronomy is often considered by those outside the field as narrow, it is in fact quite broad, covering biology (especially in Physics 205, Intelligent Life in the Universe), geology (especially in Physics 310 Planetary Astronomy), chemistry (in the formation of the solar system and in interstellar gases), physics (especially in Physics 301 (Classical Mechanics) and 306(Physical Optics)), and philosophy and religion (especially in cosmology and the beginning of time, discussed in 129/130). We believe students with a concentration in astronomy will be exposed to a wide variety of disciplines, which blends in well with the liberal education of the College of Charleston.
Costs

300 and 400 level courses in the Physics and Astronomy Department are currently under-subscribed, so additional students will not add to the budget. There will no added pressure on the Math department, since our majors will have taken all of the required math prerequisites to satisfy their major requirements. Hence, the net cost to the College will be minor.

Justification

This year, the Department of Physics has been renamed the Department of Physics and Astronomy. With the addition in the past three years of several new astronomers, our College now has the strongest and broadest astronomy undergraduate department in the state (Bob Dukes, Bill Kubinec, Terry Richardson, and Harold Nations are all astronomers, and Lee Lindner has dabbled in Planetary Astronomy). Consistent with these changes, we propose a concentration in Astronomy. Not only would this concentration offer students a strong overview of the field (benefiting the students), it may also attract additional students into our other higher-level astronomy course offerings (currently all under-subscribed) and therefore increase our FTE (benefiting our department). The minor may even attract high school or transfer students who are considering other colleges to come to the College of Charleston instead.

Description

We propose the following Catalog description (Course titles are added for review of this proposal only and will not be included in the Catalog description): "A concentration in astronomy shall consist of at least 6 courses, which must include 2 core courses and 4 elective courses. The core courses must consist of Physics 310 and Physics 311. Physics 129 and 130, or, preferably, Honors Astronomy can be used as core courses with department approval." [We envision department approval only being granted if we do not offer the core courses in a 2 year period for financial or other reasons.] "The elective courses can be chosen from Physics 205 (Intelligent Life in the Universe), 298 (Special Topics), 301 (Classical Mechanics), 306 (Physical Optics), 390 (Research), 399 (Tutorial), 412 (Special Topics), 413 (Astrophysics), 420 (Senior Research) and 499 (Bachelor's Essay). Physics 298, 390, 399, 412, 420 and 499 must involve astronomy. A minimum of 3 credit-hours of Physics 390 and 413 must be taken for these courses to count towards the minor. The courses must be approved by the student’s major advisor and the astronomy minor program director."

Signature of Department Chair: __________________________ Date submitted: __________

Signature of School’s Dean: __________________________ Date: __________

Signature of Curriculum Committee Chair: __________________________ Date approved: __________

Signature of Faculty Senate Secretary: __________________________ Date approved: __________
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: CHEMISTRY AND BIOCHEMISTRY
2. Course Number and Title: CHEM 441 Physical Chemistry
3. Course changes will go into effect: Fall 1996
4. Change(s) Desired:
   Add to the prerequisites: PHYS 201, 201L, 202, and 202L or permission of the instructor.

5. Justification for Change(s):
   Physics is required for the bachelor of science degree. Students would be better prepared for CHEM 441 if they would have completed physics prior to taking CHEM 441 Physical Chemistry.

6. Date Approved by the Department: October 20, 1995  Date Submitted: October 20, 1995
7. Signature of Department Chair: James P. Dean

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)
Committee on Curriculum and Academic Planning
Proposal to Change a Course

1. Department: **Chemistry and Biochemistry**
2. Course Number and Title: **CHEM 571 Chemical Synthesis and Characterization**
3. Course changes will go into effect: **Fall 1997**
4. Change(s) Desired:
   - Change course number to **CHEM 371**
   - Amend description by changing the word "inorganic" to "organometallic" so that it now reads:

   571 **Chemical Synthesis and Characterization (3)**
   A study of the chemistry of and methods for the synthesis, separation, and identification of chemical compounds. Emphasis is given to specialized techniques involved in synthesizing organic and organometallic compounds, and data acquisition and analysis for the identification of compounds by spectral methods. Lectures, one hour per week; laboratory, six hours per week. Prerequisite: Chemistry 221 and Chemistry 232, 232L.

5. Justification for Change(s):

   The change in number is designed to better reflect the proper sequence in a student's career that she/he should take the course. The course should be taken as a junior and not as a senior. The change in wording of the course description more accurately reflects the content of the course. In the past 15 years offering the course it has not been taken by anyone for graduate credit. Therefore there is no need to have it listed at the 500 level.

6. Date Approved by the Department: **September 1, 1995** Date Submitted: **September 8, 1995**

7. Signature of Department Chair: [signature]

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

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[Signature]
9-20-95
1. Department: CHEMISTRY & BIOCHEMISTRY

2. Course number and title: CHEM 512L
   Number of credits: One (1)
   Total hrs/week: Lecture: None
   Lab: Three (3)

3. Course will be offered first: Spring 1997

4. Catalog description (please limit to 50 words):

   CHEM 512L Advanced Inorganic Chemistry Laboratory
   A study of advanced methods for the synthesis, separation, and identification of inorganic compounds. Laboratory,
   three hours per week. Prerequisite: Chemistry 511.

   Check if appropriate: _ Humanities _ Social Science (meets minimum degree requirements)

5. Prerequisites (or other restrictions):

   Prerequisite: Chemistry 511.

6. Rationale/justification for course (consider the following issues):

   (a) What are the goals and objectives of the course?

   The goal for this course is to round out our majors' knowledge of synthetic chemistry. They currently learn a
   wide variety of techniques for preparing and characterizing organic compounds. This course will allow them to
   gain advanced skills for preparing inorganic compounds.

   (b) How does the course support the mission statement of the department and the organizing principles of the major?

   Three of the goals of our curriculum (as found in our chemistry majors handbook) are that students graduating
   in chemistry should be able to
   1) synthesize compounds
   2) identify compounds and elements
   3) use common tools of chemistry (instruments, glassware, etc.)

   This course clearly addresses these goals and will strengthen the knowledge base in the area of inorganic
   chemistry for our majors.

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?

   The proposed course will enhance the end of the major. The course will complement material learned in the
   prerequisite course. It will also allow the student to build upon laboratory techniques learned in earlier courses,
   especially CHEM 371 Chemical Synthesis and Characterization.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including
     linkages with other disciplines?

     N/A

(b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department
    indicating that the Department has discussed the proposal and supports it.)

   No other departments will be affected by this course.

9. Method of teaching: This will be a laboratory course.
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course.

Our increasing numbers of chemistry majors are also wishing to receive a degree certified by the American Chemical Society. They can do this by taking an upper-level laboratory course or research. Our current offerings are limited. The addition of this course will allow more students to be able to accomplish this.

(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

CHEM 511, which is currently offered both fall and spring will now be only offered in the fall. This will open up one slot in the spring. Depending on the number of majors we may need to offer two sections, thus needing coverage of one other course (probably a lower-level introductory lab section) by an adjunct.

(c) Frequency of offering:  

- each Fall
- X each Spring
- every 2 years
- every 3 years
- other (Explain)

11. Requirements for additional resources made necessary by this course:

(a) Staff  
No additional tenure-track faculty

(b) Budget  
Additional glassware and other consumables will be required. This will come from the departmental budget.

(c) Library  
None

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: [Signature]  
Date submitted: [Date]

14. Signature of School's Dean: [Signature]  
Date: [Date]

15. Signature of Business Affairs Official: [Signature]  
Date reviewed: [Date]

16. Signature of Curriculum Committee Chair: [Signature]  
Date approved: [Date]

17. Signature of Faculty Senate Secretary: [Signature]  
Date approved: [Date]

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to:

1. Department Chair
2. Business Affairs Office (for establishing course fee structure in SIS)
3. College Relations for addition to Undergraduate Bulletin (Attn: Rhonda Spell)
4. Academic Affairs Office (Attn: Beth Murphy)
5. Undergraduate Studies (SNAP, ON COURSE)

(For additional copies of this form, please photocopy the blank form. If a diskette for word processing of this form is desired, please send a blank diskette to Tonya Pharr, Undergraduate Studies. This form last revised March 23, 1995 and replaces all others.)

a:\newcours\newcours.wp
Proposed Course Syllabus
(List of Experiments)

1. The Preparation and Characterization of Sodium Amide

2. The Preparation and Characterization of Chloropentaammine Cobalt (III) Chloride, Nitropentaamine Cobalt (III), and Nitritopentaamine Cobalt (III) Chloride

3. The Preparation and Characterization of Nitrogenpentaamineruthenium(II) Iodide

4. The Preparation and Characterization of Ferrocene

5. The Preparation and Characterization of Trimeric and Tetrameric Phosphonitrilic Chloride

6. The Preparation and Characterization of Anhydrous Copper(II) Nitrate

7. The Preparation of and Characterization Chromocene

Students spend one lab period preparing and purifying the compound and a second lab period characterizing the compound by various physical (melting point, magnetic susceptibility) and spectroscopic means (FTIR, NMR, Mass-spectrometry, UV-VIS).

Grading: to be based on a lab notebook, written formal reports, a mid-term, and a final examination

Committee on Curriculum and Academic Planning
Proposal to Change Degree Requirements

1. Department: Chemistry & Biochemistry
2. Degree: Bachelor of Science in Chemistry
3. Degree changes will go into effect with the class entering in: Fall 1996

* pending approval of the addition of CHEM 512L to the curriculum

4. Change(s) Desired:

To add CHEM 512L Inorganic Chemistry laboratory to the degree requirements.

5. Justification for Change(s):

The addition of this course to the degree requirements will allow all bachelor of science degree recipients to complete the American Chemical Society certified program in chemistry. This will raise the number of required hours for the degree to 43. The bachelor of arts degree option remains open for those not wishing to take this course.

6. Date Approved by the Department: September 1, 1995 Date Submitted: September 3, 1995
7. Signature of Department Chair: James P. Dean

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

c:\newcours\courschg.wp

[Signature]
9-20-9
Committee on Curriculum and Academic Planning
Proposal to Change Degree Requirements

1. Department: Chemistry & Biochemistry
2. Degree: Bachelor of Science in Biochemistry
3. Degree changes will go into effect for the class entering in: Fall 1996
4. Change(s) Desired:

To add CHEM 511 Inorganic Chemistry to the degree requirements.

5. Justification for Change(s):

The addition of this course to the degree requirements will allow all degree recipients to complete the American Chemical Society certified program in biochemistry. The number of hours required for this degree would become 39 hours in chemistry, 14 hours in biology, and 16 hours in related areas.

6. Date Approved by the Department: September 1, 1995  Date Submitted: September 8, 1995
7. Signature of Department Chair: James P. Dear

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised August, 1988 and replaces all others)

c:\newcours\courschg.wp

Gordon E. Jones
9-20-95
1. Department: Physics
2. Course number and title: 105 Introduction to Meteorology  Number of credits: 3
3. Course will be offered first: Fall 1996
4. Catalog description (please limit to 50 words): Survey of the most important topics in meteorology. Sample topics include cloud formation, violent storms, thunder and lightning, rainbows, rain and snow, climate and forecasting. No credit for students who have taken Physics 308. A working knowledge of high school algebra is assumed. Lectures, three hours per week.
5. Check if appropriate: ___ Humanities ___ Social Science (meets minimum degree requirements)
6. Rationale/justification for course (consider the following issues):
   (a) What are the goals and objectives of the course? Primary goal is to teach non-science majors the science of Meteorology. Secondary goals include: enhancing student's appreciation of the value of interdisciplinary work; and the application of meteorology to a wide variety of other disciplines and careers.
   (b) How does the course support the mission statement of the department and the organizing principles of the major? Course expands the department's course offerings and service to the general student population. Course covers physics and the application of physics to weather. It is important for the department to teach not only pure physics, but also applications of physics. The Physics Department currently offers a meteorology course for science majors (Physics 308), and this new course will service non-science majors. This course should enhance department recruiting for majors and minors.
   (c) Library: Currently adequate due to collection of meteorology materials over the past 15 years.
7. For courses in the major, how does the course enhance the beginning, middle, or end of the major? Course may be used as an elective for the Bachelor of Arts major. Course does not satisfy any requirements for the Bachelor of Science major; although it may persuade some undecided students to become Physics majors. Since this course covers applications of basic physics, it could be taken at the beginning, middle, or end of the major, preferably at the beginning or middle. Course may be used as a core course for the proposed Minor in Meteorology; in which case it can be taken at the beginning, middle or end of the Minor.
8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? This course is highly interdisciplinary, incorporating aspects from physics, geology, biology and chemistry. This course is of value to a wide variety of majors and career goals.
   (b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.) No other department has a course which covers this material. Metra Van Sickle, director of the science education branch of the School of Education, has written a strong letter of support (attachment).
10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course. Anticipate a possible slight increase in non-majors taking other physics classes; effect college-wide should be minimal.
    (b) Address potential shifts in staffing of the department as it relates to the offering of this course. Once every two years, we plan on replacing a course which is heavily undersubscribed with this course.
    (c) Frequency of offering: ___ each Fall ___ each Spring ___ every 2 years ___ every 3 years ______ other (Explain)
11. Requirements for additional resources made necessary by this course:
    (a) Staff: 1/16 FTE faculty member
    (b) Budget: 1/16 FTE faculty member will be made available by shifting faculty from an undersubscribed course.
    (c) Library: Currently adequate due to collection of meteorology materials over the past 15 years.
12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory). Course syllabus and further details are attached.
13. Signature of Department Chair: __________________________ Date submitted: 12/4/95
14. Signature of School's Dean: __________________________ Date: 12-7-95
15. Signature of Business Affairs Officer: __________________________ Date reviewed: 12/5/95
16. Signature of Curriculum Committee Chair: __________________________ Date approved: 12/4/95
17. Signature of Faculty Senate Secretary: __________________________ by Senate:

Completed form should be sent by the Faculty Senate secretary to the Registrar. Copies of the completed form should be sent by the Registrar to: 1. Department Chair; 2. Business Affairs Office (for establishing course fee structure in SIS); 3. College Relations for addition to Undergraduate Bulletin (Attn.: Rhonda Spell); 4. Academic Affairs Office (Attn.: Beth Murphy); 5. Undergraduate Studies
Physics 105
INTRODUCTION TO METEOROLOGY
Further Comments

The College of Charleston currently offers two calculus-based upper-level meteorology courses for science majors, Physics 308 and EVSS 656 (Graduate course under the University of Charleston). There is a large market of non-science majors at the college who would be interested in a 100 level algebra-based meteorology course. Many non-science majors have an interest in weather, and many also have an interest in flying, which is very dependent on weather. Furthermore, many communication majors would be interested in such a course to enhance their ability to effectively present weather in TV or print media. Many education majors would enhance their ability to present weather and related topics in elementary and middle schools. We also expect several continuing education students to have an interest in this course.

There are numerous weather-related employment opportunities available to students with only a minimal background in Meteorology. Just to list some that come to mind: National Defense (especially Air Force), insurance companies, airlines, television and newspaper weather reporter, Air Traffic Control, shipping, high school teaching, farming, government policy, National Weather Service assistants, manufacture and sales of weather equipment, legal assistant on weather-related crimes (a surprisingly large business), environmental assessment, satellite remote sensing, and forecasting for events and for industry. For those who choose a B.S. degree in one of the sciences with a minor in meteorology, graduate study leading to research can be added to the list.

We are hopeful that students which enjoy this course may be persuaded to take additional offerings in our department. Hence, our department will benefit from this course in that some students who take this course may enjoy meteorology to the extent that they wish to pursue either a meteorology minor or a B.A. or B.S. degree in physics. We would like to recruit more students into our upper-level physics classes, which are currently under-subscribed.

The Registrar has approved the course title and number, and the Dean of Science and Math has heartedly endorsed this course.
Committee on Curriculum and Academic Planning  
Proposal to Change a Course 

1. Department: Educational Foundations and Specializations 
2. Course number and title: EDFS 455: Communication and Reading in the Content Areas 
3. Changes will go into effect: Fall 1996 

4. Changes desired: 
   (a) Course title; course number will stay the same; EDFS 455: Literacy and Assessment in the Content Areas 
   (b) Catalog description 
      Course emphasizes knowledge and skills secondary teachers need to (1) understand reading, writing, and thinking processes at various instructional levels, and (2) make connections between assessment and instruction. Practical application is stressed in delivery of content-specific literacy instruction; preparation, use, and interpretation of teacher-made assessments; and, use of standardized tests and interpretation of results. Practicum experience required. Offered fall only. 
   (c) Additional course content will be included in the area of student assessment (see description below) 

5. Justification for changes: 
   (a) Course name will change to reflect additional content. The term “literacy” describes more succinctly the concepts of communication and reading, which will continue to be incorporated in the course. 
   (b) Catalog description will change to reflect additional content 
   (c) The course will continue to prepare secondary content area teachers to address the needs of diverse learners specifically in the areas of reading, writing, and thinking; to diagnose the capabilities of learners; to design self-esteem building strategies that promote success in learning; to devise instruction that makes content area learning motivational and meaningful to all students; and, to communicate effectively within the school setting. 
      Additional course content will be included to better meet the needs of teachers we are preparing by providing them the skills they need to enhance student learning and improve teaching effectiveness. This new content meets teacher education standards recommended by national teacher education organizations. 
      Assessment makes a considerable contribution to student learning and teaching effectiveness. It provides feedback to students, teachers, and parents about growth in and problems with learning. It provides teachers with information necessary to make instructional decisions (e.g., pacing, content, review, instructional level) for individual students as well as for groups of students. Assessing student progress motivates pupils to practice and review academic content, influencing when, what, and how much they study. Assessment enhances teaching effectiveness by helping to determine what individual and group learning goals should be. Since it is an integral part of learning and instructional decision-making, our future teachers should be provided with opportunities to develop competency in assessing student learning. 
      According to the National Council on Measurement in Education, the National Education Association, and the American Federation of Teachers endorse the view that assessment is an essential part of teaching. These organizations support the belief that teachers should be skilled in (1) choosing, developing, administering, scoring, and interpreting assessments of students, (2) using assessment results in making instructional and curricular decisions, (3) developing valid pupil grading procedures, (4) communicating assessment results, and, (5) recognizing biased or inappropriate uses of assessments. 
      Besides providing instruction and practice in each of the areas mentioned above, EDFS 455 will help our future teachers to recognize the important part good assessment plays in education and how assessment must be inextricably tied to instructional form and content. 

6. Date approved by department: 11/9/95 Date submitted: 11/14/95 

7. Signature of department chair: 

8. Signature of dean: 

College of Charleston  
Committee on Curriculum and Academic Planning  
Proposal to Change a Course

1. Department: EDIS
2. Course Number and Title: EDIS 326 Computers for Teachers
3. Course changes will go into effect: On course syllabi and listing as soon as approved and in next printing of the undergraduate catalog
4. Change(s) Desired:

To change the word Computers to Technology in the course title and description as follows:

EDIS 326 Technology for Teachers (3)

An introductory course for pre-service teachers to use technology in the classroom. The course includes both awareness and functional levels of educational technology. Participants are made aware of educational technology terminology, types and components of technology, and the potential use of technology in education. In addition, students learn to evaluate hardware and software.

Prerequisite: EDIS 201 and class rank of junior or above.

5. Justification for Change(s):
With the changes in technology available, just computers does not reflect all that is taught in this class. Other types of educational technology such as scanning devices and digitizing hardware, telecommunications and presentation hardware and software are also used in this class.

6. Date Approved by the Department: 11/9/95 Date Submitted: __11.14.95__
7. Signature of School’s Dean: ________________
8. Signature of Department Chair: ________________

IF MORE SPACE IS NEEDED, USE EXTRA SHEET AND ATTACH
(form last revised September, 1992 and replaces all others)
Committee on Curriculum and Academic Planning
New Course Proposal

1. Department: Art History

2. Course number and title: Art History 265 - The City as a Work of Art
   (The History of the Built Form of Cities)

   Number of credits: 3

   Total hrs/week: 3 hrs/week     Lecture: Lecture Format

3. Course will be offered first: Fall 1996

4. Catalog description (please limit to 50 words): This course examines the
   characteristic elements of historical urban form, explaining their presence and
   meaning, and looking at the ways in which they were modified over time
   and space. Not a course in urban history, this is, rather, a study of the history
   of urbanism, dealing with the physical forms of the urban environment,
   primarily in Europe and the New World.

   Check if appropriate: ☑️ Humanities      Social Science (meets
   minimum degree requirements)

5. Prerequisites (or other restrictions): No prerequisites

6. Rationale/justification for course (consider the following issues):

   (a) What are the goals and objectives of the course? The goal of this
       course is to present to the student the characteristic elements of historical
       urban form, to explain their presence and meaning, and to examine the ways
       in which they were modified over time and space. This course is not a course
       in urban history, but rather a study of the history of urbanism, dealing
       primarily with the built (and unbuilt) forms of the urban environment.

   (b) How does the course support the mission statement of the
       department and the organizing principles of the major? As a vital element in
       the developing offerings in architectural history, this course provides a
       survey of the place of architecture within a larger context, so that the student
       will get some idea of the relationship -- or lack of relationship-- between the
       individual work of architecture (the building as Art Object) and the greater
       whole of the city.
It also is intended to be one of the core offerings of the proposed minor concentration in Historic Preservation and Community Planning, and will play a central role in the future major to be developed in that area.

(It should also be noted that a course very similar to this one proposed has previously been offered at the College. I find that in the 1976-1977 Bulletin it was listed as FNA 206 City Design in History.)

7. For courses in the major, how does the course enhance the beginning, middle, or end of the major?

The course adds to the developing list of 200-Level courses offered by the Art History Department. These are intended to be courses that are not as broad in scope as the introductory courses, but not as chronologically restrictive as the 300-level offerings.

8. (a) For courses used by non-majors, how does the course support the liberal arts tradition including linkages with other disciplines? Few subjects are as naturally susceptible to a multitude of approaches as the study of the city. This course looks at the City as one of the primary human artifacts. It therefore can be seen as dovetailing with the particular approaches to urbanism and urban history of other disciplines.

(b) Are other Departments affected by this course? (Please attach letters of support from the chairs of each department indicating that the Department has discussed the proposal and supports it.)

Courses dealing with the City in its various forms and its manifestations are offered by the College through the History Department and the program in Urban Studies. Letters of support from Professor Hopkins and Professor McCollough will be forwarded to the Curriculum Committee.

9. Method of teaching: Teaching will be primarily by lecture, though periodic class discussions on assigned readings will occur.

10. (a) Address potential enrollment pattern shifts in the department or college-wide related to the offering of this course. It is expected that this course will draw both Art History majors as well as interested History students and Urban Studies majors. In addition it will be a basic part of the future major in Historic Preservation and Urban Planning.
(b) Address potential shifts in staffing of the department as it relates to the offering of this course.

There will be no need for shifts in departmental faculty as a result of the institution of this course. The professor responsible for teaching this course was hired in 1994. He is proposing the course as part of his regular complement of courses within the Art History department.

(c) Frequency of offering: ___X___ every two years.

11. Requirements for additional resources made necessary by this course:

(a) Staff:
There will be no need for additional faculty for this course. Neither will there be a need for increased budget or library resources.

(b) Budget
(c) Library

(NOTE: Courses requiring additional resources will need extensive justification. Those courses offered through reorganization of current staffing and resources are encouraged.)

12. Attach course syllabus, reading lists, or any additional documentation that can help the committee evaluate this proposal (a syllabus is mandatory).

13. Signature of Department Chair: 
   Date submitted: 11/15/95

14. Signature of School's Dean: 
   Date reviewed: 11/15/95

15. Signature of Business Affairs Official: 
   Date reviewed: 

16. Signature of Curriculum Committee Chair: 
   Date approved: 12/15/95

17. Signature of Faculty Senate Secretary: 
   Date approved by Senate: 

MEMORANDUM

November 16, 1995

To: The Faculty

From: Bishop Hunt,
      Faculty Secretary

About: Meeting

The fourth regular meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, November 28 in Maybank 100.

Agenda

Speaker’s Report

Curriculum Committee:

--approval of POSC 364 (International Environmental Politics)

--changes in Religious Studies Minor

Constituents’ Concerns

Remaining Fall Senate Meetings

November 28
MEMORANDUM

To:      The Faculty
From:    Bishop Hunt,
         Faculty Secretary
About:   Meeting

The third regular meeting of the Faculty Senate will convene at 5:00 p.m. on Tuesday, November 7 in Maybank 100.

Agenda

Speaker’s Report

By-Laws/Manual Committee:

-- **Proposed Change in the By-Laws:**

Nixing simultaneous candidacy for Speaker/at-large Senator

-- Two recommendations about Senior Instructors for the *Facility/Administration Manual*:

Procedures for promotion to Senior Instructor

Full voting privileges (except for personnel decisions) in all matters of faculty governance

Curriculum Committee:

-- Proposed changes in the Political Science major

Constituents’ Concerns

Remaining Fall Senate Meetings

November 7
November 28
MEMORANDUM

August 30, 1995

To: The Faculty

From: Bishop Hunt,
Faculty Secretary

About: General Faculty Meeting

The first regular meeting of The Faculty of The College of Charleston for the academic year 1995-1996 will convene at 5:00 p.m. on MONDAY, September 11 in the recital hall of the Albert Simons Center for the Arts.

(Please note that this is the only regularly scheduled meeting of the full faculty during the Fall; there will be a second, at the end of the Spring Term.)

Agenda

The President

The Provost:

Introduction of New Faculty

Speaker's Report
MEMORANDUM

August 23, 1995

To: The Faculty

From: Bishop Hunt,
     Faculty Secretary

About: Meeting

The first regular meeting of the Faculty Senate of The College of Charleston will convene at 5:00 p.m. on Tuesday, September 5 in Room 100 of Maybank Hall. (Please note: this is not the same room the Senate used last spring.)

Agenda

Reports:

President Sanders
The Provost
Speaker's Report: appointment of Parliamentarian from among the Senators
Academic Planning Committee: accelerated graduation program

New Business:

Election of Speaker Pro Tempore
Academic Standards Committee: alternative courses for L. D. students

Constituents' General Concerns

Fall Senate Meetings, MAYBANK 100:
5:00 p.m. Tuesday, September 5
October 3
November 7
November 28

Fall Faculty Meeting, Recital Hall, Simons Center:
5:00 p.m. Monday, September 11