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UNIVERSITY SENATE
Monday, February 10, 1986
3:30 P.M. - Campus Center Assembly Hall

AGENDA

1. Approval of Minutes of December 9, 1985
2. President's Report
3. SUNY Senators' Report
4. Chair's Report
5. Council Reports
6. Old Business
   6.1 Council Appointments
7. New Business
   7.1 Bill No. 8586-10: Revision of University Writing Requirement
   7.2 Bill No. 8586-07: A Certificate Program in Geographic Information Systems and Spatial Analysis
   7.3 Bill No. 8586-09: Policy on Degrees Awarded Posthumously
UNIVERSITY SENATE
MINUTES
Monday, February 10, 1986


The meeting was called to order at 3:40 P.M. by the Chair, Kendall Birr, in the Campus Center Assembly Hall.

1. Approval of Minutes

The Minutes of December 9, 1985 were approved with the following corrections:
- Page 2 - UAC report - "information in February." is to be added to the end of the report; and on the same page - Research report - "inventives" is to be changed to "incentives."

2. President's Report

Mr. O'Leary gave a statement on Accuracy in Academia, which is attached hereto and made a part of these Minutes.

Budget - The President discussed possible impacts of plans for frictional savings by the Division of the Budget.

3. SUNY Senators' Report

The report was included in the packet.

4. Chair's Report

The Chair supplemented his written report with a report on the statewide governance leaders' meeting which included time with Chancellor Wharton. Mr. Birr gave the following highlights of that meeting:

A. There has been a great deal of discussion about implementation of the new flexibility legislation. Information will become available within two weeks on campuses.
B. The Chancellor noted that the Board of Trustees is continuing to pursue the recommendations that were made by the Independent Commission. Strengthening of research and graduate study is a problem that must be next attacked.

C. The state is now exploring the position that new construction on state campuses should be financed only partially by state funds. The State University is resisting this notion very vigorously.

5. Council Reports

CPCA - No report

EPC - A written report was available at the door.

UAC - A written report was available at the door.

GAC - A written report was available at the door.

Research - No report

Library - A written report was available at the door.

SAC - The Council will be meeting shortly.

CAFE - Working on Faculty Code of Ethics. The Council is also interested in the activities of Accuracy in Academia.

UCC - Expecting to hear from Norb Zahm shortly.

6. Old Business

6.1 V. Aceto moved appointment of Senators Hastings and Long to EPC. The motion was seconded and carried unanimously.

M. Elbow moved appointment of Catina Mavodones and Elizabeth McCoy to CAFE. The motion was seconded and carried unanimously.

7. New Business

7.1 Bill No. 8586-10: Revision of University Writing Requirement

W. Hammond explained the intention of this bill and moved its adoption. The motion was seconded and a discussion followed. The bill was approved with one opposed and three abstentions.

7.2 Bill No. 8586-07: A Certificate Program in Geographic Information Systems and Spatial Analysis

W. Hammond moved approval of this bill. The motion was seconded.
W. Lanford moved that the bill be referred to EPC for a thorough study. His motion was seconded by H. Desfosses. F. Frank moved the question. This motion was seconded and debate was closed on the question. The motion to refer was lost. There was no further debate on the original motion. The bill was approved.

7.3 Bill No. 8586-09: Policy on Degrees Awarded Posthumously

W. Hammond moved approval of this bill. F. Frank made a friendly amendment to change "chairman" to "chair". W. Hammond accepted the amendment. V. Aceto called the question. The bill was approved unanimously.

A motion was made to adjourn. The meeting was adjourned at 5:15 P.M.

Respectfully submitted,

Beverly Roth
Recorder
Statement on "Accuracy in Academia"

Some concern recently has been expressed about a group which has recently appeared on this campus called "Accuracy in Academia." It purportedly invites students to report to an off-campus group when they hear in classrooms what they believe to be seriously inaccurate information imparted by instructors. Frankly, from my observation this is an extremely small group on this campus and I do not wish to give it greater credence than warranted. But I think some comments are appropriate.

The Board of Trustees Policies, and a tradition of American universities, has long upheld the right of a professor to speak freely in the classroom on matters within his or her area of expertise. The faculty member obviously is responsible for the views he or she expresses and expects challenge on material presented. In fact, teachers are encouraged to seek such challenge. For the most important questions addressed in a university do not yield to easy and obvious answers. It is not in the nature of an academic enterprise to speak of "accuracy" as if there were fully developed answers to all questions. The argument about possible answers is at the heart of the academic experience. As a recent publication of the Association of American Colleges pointed out, "Thomas Jefferson, in establishing the University of Virginia, summarized well the attitude that should inform the intellectual activity of the classroom: 'Here we are not afraid to follow the truth wherever it may lead, nor to tolerate any error so long as reason is left free to combat it.'"

In the rare instance where there is an alleged breach of the limits of academic freedom in a classroom by a professor, well established processes exist by which groups of faculty are available to assess such allegations. Self-governance is a central tenet necessary for the independence of higher educational institutions in this country. This University will not permit attacks on these self-governing processes.

Many groups and individuals have tried to impose ideological tests on universities in the past. Such attempts are inevitably aimed at creating a chilling effect in the classroom and if successful will deprive students of the kind of education they deserve and society the information it needs. The University's Educational Policy Council will be developing a statement for the Senate on these issues. I am certain it will state the determination of the members of this campus -- faculty, staff, administrators, and students -- to rebuff attempts to create a climate of intimidation in our classrooms at any time.

Vincent O'Leary
Statement to the University Senate
February 10, 1986
The 82nd session of the SUNY Faculty Senate met at SUNY Farmingdale, January 31 through February 1, 1986. The following notes record the agenda and actions of the session. Senators are welcome to contact me for further information or for copies of documents mentioned.

I. Chancellor's Report

Comments by Chancellor Wharton concentrated on progress in implementing the Report of the Independent Commission and Flexibility Legislation, and concerns over the proposed 1986-87 Executive Budget. (The budget was discussed at length during a briefing by a member of the Chancellor's staff.)

II. The meeting received written reports from:

A. President Joe Flynn
B. The Senate Executive Committee
C. The Committee on Graduate and Academic Programs and Research
D. The Committee on Student Life
E. The Committee on Undergraduate Academic Programs and Policies
F. The Committee on University Operations
G. The Committee on University Programs and Awards

III. Under the supervision of the Committee on Graduate and Academic Programs and Research, Senators completed a questionnaire designed to measure attitudes towards graduate studies and research in the SUNY system.

IV. The Senate considered the following resolutions for action:

A. Resolution to recommend establishment of Council on Women's Studies: PASSED
B. Resolution regarding articulation between two-year and four-year institutions: PASSED
C. Resolution regarding nominations for distinguished professor ranks: PASSED
D. Resolution reaffirming principle of academic freedom: PASSED
E. Resolution calling for dissemination of quarterly reports on progress on Flexibility Legislation: PASSED
F. Resolution regarding separation of Senate and UUP and urging Senates to avoid discussion of issues pertaining to current collective bargaining: FAILED
G. Resolution requesting representation on Teacher Education advisory group: PASSED
H. Resolution approving creation of advisory committee on academic computing: PASSED
I. Resolution regarding the Tax Reform Act (1985 - H.R. 3838), calling on faculty to protest to their representatives in Washington: PASSED
J. Resolution directed to Governor Cuomo, urging changes in the proposed 1986-87 budget: PASSED
K. Resolution urging Chancellor Wharton and Governor Cuomo to use their influence to bring about an end to current contract impasse: PASSED
V. The Senate met with representatives of the Board of Trustees: Donald Blinken, Judith Moyers, and John Holloman.

VI. Senators were asked to nominate faculty members for membership in the committees of the SUNY Senate (those interested should contact me for further information).

Senators are also informed that the summary of proceedings of the 81st meeting (Plattsburgh, 11/1 - 11/2/85) are available in the Senate Office. The proceedings of the Farmingdale meeting will be added as soon as they are received.

Submitted,

Ernest Scatton

Ernest Scatton

February 3, 1986
Report of the Senate Chair:

1. The Council on Research is searching for new members to serve on the enlarged Council authorized by Bill 8586-04.

2. President O'Leary communicated to Albany officials the Senate's concern about alternate-side-of-the-street parking in the city of Albany as articulated in Bill 8586-05.

3. The proposed Business School program in London has been examined by both the UAC and EPC since the December Senate meeting. Indeed, UAC recommended a revision of the University's residency requirement to meet the needs of the program. However, the proposal to start the program is currently on hold, and no further governance consideration is requested at this time.

4. The GAC forwarded to the Executive Committee two new programs for Senate consideration. However, Senate action on these bills has been deferred until March at the request of the Council.
EDUCATIONAL POLICIES COUNCIL ACTIVITY REPORT
February 10, 1986

The Council has met on December 13, 1985 and February 3, 1986. Sharon Long has been appointed as a graduate student member of the Council and assigned to the Resource Advisory Committee. Sandra Fischer has resigned from the Council and been replaced by George Hastings for the remainder of the academic year.

The Committee on Evaluation Policy will advise Executive Vice President Ramaley on a Student Association proposal to undertake joint student-administration collection of instructional ratings and will advise on the University's periodic Review Report to be filed with the Middle States's Association.

The Resource Advisory Committee has been meeting with Vice Presidents to familiarize themselves with the budget. RAC members have also been assigned to the President's Budget Panel.

The Long-Range Planning Committee, acting for the Council, has approved the following programs: Graduate Certificate Program in Women & Public Policy; Undergraduate Certificate Program in Geographic Information Systems and Spatial Analysis. The Committee has also discussed enrollment management and goals, computing and technology and the School of Business Proposed Program in London. A report on the London Program was presented to the Council with Dean Kahalas present as a guest. The report raised three major concerns which should not necessarily delay implementation of the program. These are:

1. Residence requirement as it impacts liberal arts requirements and student choice of courses. LRP recommended that arrangements be explored with the University of London to offer intellectual variety more closely approximating what is available at SUNYA.

2. Evaluation criteria to be used to assess the three-year experiment.

3. The quality of student life may be limited by the presence during the academic year of only one SUNYA faculty member who will have many diverse and competing responsibilities.

Questions from the council focused on the IFR financial arrangements, on provisions for protecting students in the event the program is phased out, on the desirability of
exchanging both students and faculty between SUNYA and London, on the compressed calendar and its compatibility with the University of London, on the nature of the students, on the dormitory, library, computing and other facilities available, on the accrediting role of AACSB, on the experience of the Miami/CMMS MBA program, on the impact of faculty resources at SUNYA, on the historical origins of the arrangement, and on the feasibility of beginning the program in spring 1986.

The Council then examined its own role and the role of UAC. It was decided that questions of appropriateness would be examined by EPC and questions of quality by UAC. The Council unanimously approved a motion to participate in an on-going evaluation of the School of Business London Program taking into account the concerns expressed by the Council and also giving particular attention to the program as a model for other similar programs, to its impact on this campus, and to any policy issues which may arise out of its continuation. A three-member committee was established at the last meeting of the Council to address the concerns and issues raised above.

A resolution which condemns the activities of Accuracy in Academia to sit in on classes and report on instructors was introduced by M. Miller, N. Charny, A. Kampel, S. Landis. After long discussion, the Council decided to appoint a special committee to review the resolution and prepare a final draft for presentation at the next Senate meeting.
MEMORANDUM

TO: Ken Birr, Senate Chair
FROM: Bill Hammond, UAC Chair
RE: Council Report

FOR ACTION:

1. Proposed Certificate Program in Geographic Information Systems and Spatial Analysis (Bill No. 8586-07)
2. Revision of Residence Requirements for the proposed London Business Program (Bill No. 8586-08)

FOR INFORMATION:

1. General Education credits with the same prefix

Currently a student is allowed a maximum of 12 credits with a given prefix (such as A ECO or R POS). The Council has liberalized this provision slightly by setting the limitation as 4 courses.

2. Revision of non-departmental independent study rules

(a) The course U UNI 197 has been discontinued because independent study at the 100 level is highly questionable.

(b) The maximum credit load for U UNI 397, Independent Study and Research, has been reduced from 15 to 6 credits. It is difficult to imagine an independent study project that would warrant more than 6 credits unless that project involved working closely with a faculty member or a supervisor, in which case the project would be better presented as an internship.

3. Revision of the Honors Program in Sociology

The Council has approved the plan of the department to delete SOC 486, Junior Honors Colloquium, as a requirement for the Honors Program.

4. Request for further information on the London Business Program

At the suggestion of three committee chairs, the Council asked the School of Business Administration to draw up the proposed London program in the same format used for new degree programs.
January 24, 1986

MEMORANDUM

TO: Ken Birr, Senate Chair
FROM: Bill Hammond, UAC Chair
RE: Further Report on Council Activity

FOR ACTION:
1. Bill No. 8586-09 - Proposed Policy on Degrees Awarded Posthumously
2. Bill No. 8586-10 - Proposed Revision of University Writing Requirement

FOR INFORMATION:
1. Carol Anderson has been elected Vice Chair of the Council.
2. The Council has approved minor changes in the majors in Accounting and Business Administration.
3. The Council has been informed that plans for the London Business program are currently in abeyance.
State University of New York at Albany

MEMORANDUM

TO: University Senate
FROM: Donald J. Reeb, Chair
Graduate Academic Council
DATE: February 10, 1986
SUBJECT: Graduate Academic Council

Meetings were held by the committees (or will soon be held by):

  Committee on Admissions and Academic Standing
      Richard Farrell, staff person

  Committee on Curriculum and Instruction
      Robert McFarland, staff person

  Committee on Educational Policies and Procedures
      Jeff Collins, staff person

Council will be meeting this week to discuss any other agenda items
and the request to change the D.P.A. to a Ph.D.

DJR:tlf
MEMORANDUM

TO: Ken Birr, Senate Chair
FROM: Graeme R. Newman, Chair, Library Council

RE: Activity Report
DATE: January 27, 1986

Collection Development Advisory Committee

The council voted unanimously to support the establishment of the Collection Development Advisory Committee proposed by Dr. Shumaker.

Role of the Committee: To advise the Director of the Library and Vice President for Educational Planning concerning criteria for the allocation of the University's acquisition budget. This budget is a separate item, not subject to review by the budget panels. The Committee would, generally, perform in a manner similar to a budget panel. The Committee will, at least once a year, submit a report to the Library Council.

Membership of the Committee:

a) 4 members appointed by the Library Council, 1 of whom would be chair, 1 of whom would be a student.

b) 3 members appointed by the Vice President for Academic Planning and Development

c) 1 librarian appointed by the Director of Libraries

d) Membership will be for a period of 2 years
IT IS HEREBY PROPOSED:

I. That for the B.A. and B.S. degrees, students must satisfactorily complete with grades of "C" or higher, or "S," two writing-intensive courses, including at least one at or above the 300-level.

II. That this degree requirement become effective for all students graduating in May 1990 and thereafter.

III. That this proposal be referred to the President for approval.

RATIONALE:

Contemporary national thought among educators who specialize in writing at the college level calls for writing in the disciplines as a replacement for the traditional "freshman comp."

It is important to understand that we are not discussing the acquisition of basic writing skills. We want to advertise plainly that we expect entering students to know how to write and that remediation in writing is available here only on a noncredit basis.

Three decades ago students in our predecessor institution were routinely required to submit papers in many of their courses. Ten years ago we woke up to find many undergraduates emerging from here without ever writing a single paper. Five years ago we took a first step toward putting things back in shape. This proposal is a second step.
RECOMMENDATIONS FOR IMPLEMENTATION

1. The Office of Academic Affairs should coordinate the development, scheduling, and evaluation of the writing-intensive courses.

2. English 100 should remain available as a course for students desiring to increase their basic skills but will not satisfy the writing requirement.

3. The deans of the individual colleges and schools should insure a range of available courses distributed through departments, at both the lower and upper levels, according to the circumstances of each college and the needs of its students.

4. Additional resources should be assigned to the Writing Center in the form of faculty, graduate assistants, and student tutors. The Writing Center should become a focal point for students and faculty needing assistance.

5. The Writing Center and the Department of English should help provide training and assistance to faculty developing or offering writing-intensive courses.

6. The resources currently used to offer most of the Eng 100 sections should be redeployed to support writing-intensive courses throughout the University.

7. If possible, each major should have a writing-intensive course for its students. All students should be fully immersed in and have extensive experience in writing in their major academic curriculum.

8. Instruction in the use and capabilities of our libraries should be an integral part of the writing-intensive courses. This instruction occurs currently in Eng 100.

9. The Writing-Intensive Program and its courses should be constantly monitored and evaluated to make certain students are exposed to the opportunity to develop their writing skills.

10. The University should inform students and high schools throughout the state that it takes writing seriously and that students who have good writing skills when they arrive will do better in all courses.

INTENTION

Students will satisfy the University writing requirement by completing two writing-intensive courses, one of which should be taken, ideally, during the first two years of study. A writing-intensive course brings diverse, continuous, and supported practice in writing to the service of learning the concepts and modes of inquiry characteristic of a particular academic discipline.
English 100 will be available for students who wish writing practice before or in addition to taking a writing-intensive course, but it will not satisfy the requirement. A small number, possibly three, sections of Eng 100 would be provided each fall, and maybe one in the spring, to serve these students. The resources currently used to offer over thirty sections of Eng 100 will be redeployed to support writing-intensive courses throughout the curriculum. The Department of English will also continue to offer some upper level composition courses, satisfying the requirement because of their focus on professional discourse, but will shift the burden of its instruction to writing-intensive literature sections.

**PHILOSOPHY**

The purpose of the writing-intensive curriculum is to offer students repeated opportunities to write in circumstances in which the writing has value for their personal learning, self-expression, and practical communication. As the current General Education guideline says: "A writing-intensive course uses writing as an important tool in the discipline studied, and is not designed primarily to teach the technical aspects of writing. The emphasis should be on using writing as a means of sharpening thinking in and understanding of the subject." One sign of the program’s success ought to be students’ willingness to take more than the two required courses over four years because the number and variety of writing-intensive offerings make them desirable as ways to satisfy both general education and major requirements throughout departments.

An adequately productive ratio of teachers to students in writing-intensive courses is 1 to 25, and the maximum should be 1 to 35. This ratio, however, will depend upon the nature of the course and the amount of assistance available to an instructor. A class, therefore, could have an enrollment of 100 students. (It should be noted, however, that these estimates reflect a compromise with existing SUNYA class size averages rather than an ideal size. One national survey of writing class sizes (ADE Bulletin, Winter, 1984) lists the following averages: 21.6 in freshman composition; 19.3 in advanced composition; and 19.5 in business/technical writing.) Larger courses might consider team-teaching, TA support in laboratory or discussion section meetings, and peer tutors as means of reducing the teacher/student ratio.

Any course should aim to offer a variety of writing experiences, such as journals, personal notebooks, exploratory writing, reports, formal argumentative essays, research papers, and professional documents. The writing should range from personal to public and address general readers as well as specialists. There should be time for peer and teacher responses to work-in-progress, substantive revision, small-group activity, and, where feasible, in-class writing to facilitate lecture and discussion. TAs and other faculty from the English Department will be available as team-teachers and/or professional consultants, helping to develop syllabi and assignments; sharing teaching activities, which include small group discussion and the reading of written work; preparing TAs in other disciplines; and
training peer tutors. The Writing Center staff will be available to orient new faculty and tutors as well as to confer with students in planning, writing, and revising their work.

CURRENT WRITING-INTENSIVE COURSE GUIDELINES

Purpose

A writing-intensive course uses writing as an important learning tool in the discipline studied, and is not designed primarily to teach the technical aspects of writing. The emphasis should be on using writing as a means of sharpening thinking in and understanding of the subject matter.

Criteria

1. A Substantial Body of Finished Work

This is generally expected to total 20+ double-spaced pages in at least two, preferably more, submissions. It may be in a variety of forms - journal, reports, essays, research papers, etc - not all of which need to be graded.

2. Opportunity for Students to Receive Assistance in Progress

Such assistance may take several forms, from visits to the Writing Center to conferences with the instructor.

3. Opportunity to Revise Some Pieces

As revision is an essential characteristic of good writing, students should be able to revise some portion of their work.

4. Response to Student Writing

Such response may take many forms - from extended comments from the instructor to peer evaluation in student groups. It is expected, however, that the instructor will respond in detail to some extended work of the student.

ADMINISTRATION

A representative of Academic Affairs will be responsible for managing the writing-intensive curriculum. Tasks will include setting program guidelines, approving new courses, attracting new faculty, insuring adequate distribution of courses, evaluating the quality of instruction, and troubleshooting. Writing specialists in the English Department will serve as advisors to the program on matters of instruction, training, and evaluation. The deans of the individual schools and colleges will insure a range of available courses distributed through departments, at both 100/200 and 300/400 levels, according to the circumstances of each college and the needs of its students. Each college will be responsible for a given number of spaces, assessed according to its size and the nature of its instruction.
It is anticipated that a majority of departments would offer 100- or 200-level courses. Many departments would like to increase their enrollments and hence the chance for increasing the number of majors. Such departments would be encouraged to offer one or more writing-intensive courses since students will be attracted to courses that fulfill requirements. Conversely, in those departments with heavy introductory course enrollments already, adding writing-intensive sections would be discouraged, so as not to enhance enrollments.

The greatest challenge of the new requirement is likely to be the development of writing-intensive courses for majors. The goal is to have each student who graduates from SUNYA fully immersed in and have extensive experience in writing in the discipline. Students should be familiar with the styles of their discipline. They should be able to express themselves in the manner of the discipline, not just read works written in the discipline. Many departments already have a course or courses that readily lend themselves to writing-intensive for majors. Other departments will have to design new courses to meet this need. With an institutional commitment to writing, general faculty desire to improve the weak writing skills of our students, and the expertise and support of writing specialists, the goal can be achieved.

Many writing-intensive courses will be developed by slightly modifying the format of existing courses, and will be conducted by the faculty now teaching those courses. Other courses will become writing-intensive only after substantial revision and augmentation by personnel from the English Department to share the increased load. Some new courses will be introduced, possibly requiring auxiliary support from English staff.

Some faculty may wish some assistance in preparing and conducting a writing-intensive course. The Writing Center is currently preparing a manual and training session for faculty. Department of English faculty will be available to provide seminars to their colleagues in other departments.

THE WRITING CENTER

It is appropriate for the Writing Center to serve writing-intensive faculty and students. But at the same time, the services that the Center currently provides to faculty and students not associated with the writing program are too valuable to be curtailed or compromised because of the additional burdens of the writing-intensive curriculum. Accordingly, additional resources will be assigned to the Writing Center in the form of faculty, graduate assistants, and student tutors. The workload of the Center will increase substantially and resources must be available to meet the needs of the students and faculty.
FACULTY DEVELOPMENT

It is unrealistic to assume that all faculty from other disciplines, including graduate TAs, will be automatically comfortable with the adjustments of time and emphasis implied in a writing-intensive course, or that they will readily devise syllabi, writing assignments, reading strategies, and evaluation procedures without some support from specialists in writing instruction. That support can take several forms and it ought to begin during the spring semester of 1986. Professionals from other universities with writing-intensive curricula should be invited to address deans, department chairs, and faculty associated with our program, ranging from instructional philosophies to classroom management. English department specialists should follow these meetings with colloquia and seminars designed to explore the practical issues of using writing to teach different disciplines. Once volunteers for the program have come forward, they should be able to seek whatever help they wish from the Writing Center in order to design courses that meet their own objectives and those of the program as well. Once those courses enter the curriculum, they should become part of a continuous review and information exchange designed to stimulate imaginative teaching and program innovation. Some initial funding for these exchanges would demonstrate the University’s commitment to the best curriculum we can devise.

LIBRARY INSTRUCTION

The University Libraries currently use the Eng 100 classes to provide students with an introduction to the use of the University Libraries. Much of the instruction is done through the use of a workbook prepared and distributed to Eng 100 instructors by the bibliographic instruction unit of the University Libraries. The workbook has been reaching approximately 700 students per year. This is an important instructional program which enhances undergraduate students’ ability to make maximum use of the University Libraries’ resources. It may be an even more important component of the curricula given the likelihood that the revised writing requirement may produce greater use of the University Libraries’ resources. Consequently, all 100- and 200-level writing-intensive courses should devote part of their syllabi to library instruction. The form of the instruction should be left up to the individual instructor who may consult with the bibliographic instruction unit of the University Libraries or the University Libraries liaison to the instructor’s department.

Those 300- and 400-level writing-intensive courses which have research paper assignments should have a bibliographic instruction component in their syllabi. The bibliographic instruction component should be designed to familiarize the student with library resources before the research paper is assigned. The instruction would provide more sophisticated and more field-specific information than that provided in 100- or 200-level courses.
The writing-intensive curriculum is already partly in place. Additional 100- and 200-level writing-intensive courses will need to be developed to provide adequate spaces for students during 1986-87 and 1987-88. The 300- and 400-level writing-intensive courses need to be offered commencing with the 1988 fall semester.

The process of faculty development and exploration of additional writing-intensive courses must begin during the 1986 spring semester. Immediate emphasis will be placed on obtaining additional lower level courses so that freshmen admitted in fall of 1986 can be accommodated during their freshman and sophomore years. By fall of 1987 the entire array and scheduling pattern of both lower and upper division writing-intensive courses should be in place. The course schedule for fall of 1988 will be due to the Registrar by January, 1988.

Suggestions for Writing-Intensive Instruction

Teachers not familiar with writing instruction may be unaware of the diversity of activities beneficial to the growth of literacy. Here are some of them.

Out of class, students can keep speculative notebooks on their course readings and lecture information. The notebooks are informal but public, expected to offer coherent thinking entry by entry but not an overarching "argument." Students should feel free to spell out their own understanding of the reading, or of previous lectures, defining ideas, examining issues, raising questions, or rephrasing conclusions on their own. Teachers may read them from time to time to see how students are coming to understand concepts, issues, connections among concepts and issues, methods, and arguments in the course; but they need not be concerned with formal or technical correctness. Occasional marginal notes to the writers can aim to clarify students' understanding of course material, make connections that students may have missed, recommend new avenues of thought, raise questions to consider, and offer bibliography. But the notebooks need not be corrected or graded.

At the start of a lecture, the instructor may ask two or three students to read from their notebooks to get the day's work started. Or the instructor might interrupt the class after explaining a difficult concept and ask students to write for five minutes, explaining the concept in their own words to someone who has never heard about it before. Or the instructor might end the lecture five minutes early to enable students to summarize what
they have heard during that class, inviting a few students to read their summaries aloud before adjourning. Students should be free to include this summary in their notebooks, changing or expanding it as they choose.

In a small-group discussion meeting, where student interaction rather than lecture is emphasized, students can prepare one-page statements about the reading or the issue they will be considering. At the start of class, and/or periodically throughout, several students read their statements— which may offer arguments, raise questions, confess uncertainties, define ideas, assert connections, criticize texts, or probe tangential issues. These readings help to guide discussion, revealing confusion, locating provocative concerns, generating disagreement or consensus. Alternatively, students might write for ten minutes in class as a way of getting involved in a question, marshalling ideas, testing views. In a science lab, students can exchange or read aloud prelab statements, abstracts, or parts of their experiment reports for appropriate discussion.

Students can practice the professional genres of their particular disciplines. Often, this writing will aim at clarifying issues of intention and audience, methodological propriety, the generic and formal constraints of discourse in a given field, and technical control. Students can experiment with different modes of self and public expression, test different ways of finding, ordering, connecting, or emphasizing information, write to audiences with different degrees of knowledge about a discipline, compose summaries and abstracts of lecture, lab, or textual information, plan their topics for more formal class assignments such as reports and term papers, break into groups of 4 or 5 to read and respond to each other’s first drafts of those formal papers, or work at revision as the instructor goes from group to group or from student to student.

Students can visit the Writing Center to plan their writing and get responses to work-in-progress.
IT IS HEREBY PROPOSED:

I. That the certificate program in Geographic Information Systems and Spatial Analysis with the attached requirements be approved and become effective immediately upon registration by the State Education Department.

II. That this bill be referred to the President for approval.
Department of Geography and Regional Planning

Proposal for:

A Certificate Program in Geographic Information Systems and Spatial Analysis

March, 1985
1. **General Objectives of the Program**

The purpose of the Certificate Program is to provide undergraduates with the technical and professionally-oriented training necessary to pursue careers in fields that apply Geographic Information Systems and Spatial Analysis. Geographic Information Systems and Spatial Analysis (GISSA) are technical specialities of Geography that are growing in importance within the discipline, and which are increasingly attractive to employers in the public and private sectors.

Briefly, these specialities can be defined as follows. A Geographic Information System is a spatial data base management system designed to store, retrieve, analyze and display large volumes of geographical data in digital form. Various strategies are used in designing information systems that are optimal for different applications which mandates that the practitioner be familiar with the subdisciplines of automated cartography, computer graphics, remote sensing and spatial analysis. Knowledge of the first three subdisciplines provides the practitioner with an understanding of the technical components of geographic information systems while the application ties the technical specialities with the unifying concept of spatial analysis. Spatial Analysis applies distinctively spatial descriptive and inferential methods to geocoded data. Spatial analysis also moves beyond description and inference into the modeling of spatial systems. Interaction modeling (e.g. gravity models of migration and shopping travel), diffusion analysis (e.g. spatial propagation of information or disease) and modeling of environmental systems (e.g. climate and agricultural yields) are examples of geographic modeling.

Two common threads tie these diverse applications into the cohesive disciplinary perspective of GISSA: 1) an emphasis on spatial representation
and analysis (which defines modern geography as a discipline); and 2) intensive use of digital technologies to capture, store, analyze and display geographically based data. The program that we are proposing weaves these threads together in a format that will allow students to develop expertise in the various aspects of spatial data handling of critical concern to the development of successful geographical information systems.

The proposed program comprises 32 credit-hours. It has been designed so that students choosing the appropriate electives, as described below, will meet the federal government's eligibility requirements for the GS-5 cartographer rating. The program is technically and professionally oriented and is not intended as a substitute for the 36-unit liberal arts major in Geography. The Certificate has been designed to be easily accessible to Geography majors, but it will attract students in other fields including the Earth Sciences, Computer Science, Rockefeller College and the School of Business.

A student completing the Certificate Program will have more than satisfied the requirements for a minor in Geography. Finally, it will provide students with a solid academic foundation for further study in geographic information systems, spatial analysis, cartography and remote sensing.

2. Background of the Program

The Department of Geography and Regional Planning at SUNY Albany has had, for many years, a strong national and international reputation in cartography, remote sensing and quantitative methods. Outside funding on grants and contracts has been obtained regularly, most recently in the form of an N.S.F. Scientific Equipment Grant. Recent contract work by faculty
has included:

1) Hardware installation and training for a digital data capture and edit system for the Ministry of Defense Aviation, Kingdom of Saudi Arabia;

2) Development of digitizing software and graphic display systems for one of the world's leading digitizing system manufacturers;

3) Development of a thematic mapping package for a large cartographic organization;


The University has already made a substantial investment in computing and other equipment for the department. The department has an established record of placing students in positions that require skills in geographic information systems and spatial analysis. For some time department members have felt the need to give students a more professionally oriented and technically specific credential than the liberal arts geography major. Two quantitatively-oriented faculty members (Roger Stump and John Hayes) joined the department recently (in 1982 and 1984 respectively). The undergraduate curriculum has been extensively revised and several new courses have been developed including one on geographic information systems. Department members now feel that the time is ripe to propose a formal Certificate Program.

The idea of an undergraduate Certificate Program is somewhat unusual in the context of SUNYA, but in the SUNY system and higher education as a whole there are many successful precedents.

It should be emphasized that this Certificate proposal does not signal a major shift in the mission of the department away from the traditional
liberal arts discipline of Geography. Modest new resources will be required if the Certificate Program is to grow. But in essence the department is renaming and making more formal a thrust that it has had for many years, with the intent of broadening its appeal to students outside of the conventional discipline. At a time of austerity in higher education this seems to be a rational strategy of program development.

3. Rationale and Need for the Program

Applications of information processing technology are rapidly growing in all sectors of the economy. Geographically coded data -- in conventional maps and in digital form -- are an indispensable part of the information base in areas as diverse as market analysis for business, environmental impact analysis in urban and regional planning, in activities of the Census Bureau, Federal and State Geological Surveys, and in the intelligence gathering activities of the federal government. Analytical geography is the only academic discipline to combine theory and methods on the spatial, cartographic, remote sensing and information processing aspects of these methodologies.

The department's experience in recent years shows that demand for these skills is growing. Typical careers in the private sector include map-making, surveying, market and locational analysis for business, service and industry, route analysis for public carriers, and work with consulting agencies concerned with recreation, transportation and real-estate development. Demand for specialists in GISSA is very strong in the public sector, also state, local and federal agencies concerned with planning for urban and regional development, environmental conservation and impact analysis, transportation, parks, recreation and commerce, and in electoral and political
analysis (e.g. redistricting). At the Federal level there has recently been strong demand for cartographers and remote sensors at intelligence agencies such as the Defense Mapping Agency. The Bureau of the Census is presently undertaking massive programs to develop computer-readable spatial data bases. This innovation will increase the demand for qualified specialists in GISSA among all large consumers of Census statistics.

The Department of Geography and Regional Planning already has an impressive record of placing students in these areas. With the more focussed training and the explicit credential provided by a formal Certificate the Department's volume of enrollment and placement will increase.

4. Curriculum and Graduation Requirements

The Certificate Program requires students to complete a minimum of 32 credit hours of coursework, including 20 credit hours of core courses and 12 credits of electives.

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOG 290</td>
<td>Introductory Cartography</td>
<td>4</td>
</tr>
<tr>
<td>GOG 385</td>
<td>Introduction to Remote Sensing</td>
<td>4</td>
</tr>
<tr>
<td>GOG 396</td>
<td>Spatial Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GOG 414</td>
<td>Computer Map Analysis</td>
<td>3</td>
</tr>
<tr>
<td>GOG 485</td>
<td>Intermediate Remote Sensing</td>
<td>3</td>
</tr>
<tr>
<td>GOG 496</td>
<td>Geographic Information Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One elective in Mathematics, as advised</td>
<td>3</td>
</tr>
<tr>
<td>One elective in Computer Science, as advised</td>
<td>3</td>
</tr>
<tr>
<td>Two electives in Geography, as advised</td>
<td>6</td>
</tr>
</tbody>
</table>

Total 32 units
Students who wish to meet the eligibility requirements for the Federal GS-5 cartographer rating must take an additional 3 credits of Mathematics and GOG 101 (Introduction to the Physical Environment).

Course Descriptions of Core Courses

GOG 290 Introductory Cartography
Techniques applicable to data compilation, and design and construction of maps. Cartographic expression as a basic tool for analysis and presentation of spatial phenomena and statistical surfaces.

GOG 385 Introduction to Remote Sensing of Environment
Analysis of multispectral reconnaissance techniques and instruments used to study the environment. Emphasis on principles of multispectral photography, color and color infrared photography, thermal infrared and multifrequency radar systems and their application in the investigation of cultural and biophysical phenomena. Two lectures and two hours of laboratory work each week. Prerequisite: junior or senior class standing, or permission of instructor.

GOG 396 Introduction to Spatial Analysis
An introduction to quantitative methods used in the analysis of spatial data, including parametric and nonparametric statistics, and techniques of point and areal pattern analysis. Prerequisite: MAT 106Y or 107Y or 108Y, or permission of instructor.

GOG 414 Computer Map Analysis
Computerized methods for displaying and analyzing spatial data. Printer and plotter mapping. Interpolation methods, power series and Fourier trend analysis, spatial filtering. Geographic base files. Introduction to pattern analysis. Prerequisite: GOG 290 or permission of instructor.
GOG 485 Intermediate Remote Sensing of the Environment

Current research in geographic remote sensing of the environment with emphasis on past, present, and future applications in geography and related disciplines. Practice in planning, design, and interpretation of overflights with various types of remote sensing systems. Prerequisite: GOG 385.

GOG 496 Geographic Information Systems

An introduction to the structure, design, and application of data base management systems designed to accept large volumes of spatial data derived from various sources. The student will learn how to efficiently store, retrieve, manipulate, analyze, and display these data according to a variety of user-defined specifications. Prerequisite: GOG 101 and (GOG 290 or 291 or 390) and Math 106Y, or equivalent, or as advised.

5. New Courses Developed to Support the Program

This year and last the Department has undertaken a wide revision of the curriculum. Several new courses in the department may be of interest to Certificate students as electives (e.g. in air-photo interpretation and climatology). Here we will only describe curriculum changes in core courses of the Certificate.

1) A new course on Geographic Information Systems has been approved (GOG 496).

2) GOG 396 (Spatial Analysis) has been revised and renamed.

3) GOG 414 (Computer Map Analysis) will be changed from 2 to 3 credit hours with a corresponding increase in depth.

4) GOG 485 (Intermediate Remote Sensing) was previously a shared resources course with GOG 585. This connection has been broken, leaving GOG 485 as a free-standing undergraduate course.
6. Typical or Model Program

All core courses will be offered annually. GOG 290, 385, 396 will normally be given in the Fall; GOG 414, 485 and 496 will usually be given in the Spring semester. A student could spread the Certificate courses over three or even four years. However it will be possible to complete the program in three semesters. All students will take the 20 core units (except in special cases, dealt with by waiver).

Typical choices of the 12 elective units are as follows:

1) For a social science major, interested in applications of spatial analysis to urban and social problems:
   MAT 308 (Topics in Statistical Inference)
   CSI 203 (Data Processing Principles)
   GOG 480 (Applied Urban Social Geography)
   GOG 484 (Planning Applications of Remote Sensing)

2) For a geography major, concerned with applications in cartography:
   MAT 106 or 108 (Survey of Calculus or Statistics)
   CSI 310 (Data Structures)
   GOG 390 (Intermediate Cartography)
   GOG 485 (Seminar in Cartography)

3) For a business major, combining an interest in computer graphics with economic applications:
   MAT 372 (Elements of Game Theory and Linear Programming)
   CSI 203 (Data Processing Principles)
   GOG 210 (Introduction to Economic Geography)
   GOG 397 or 417 (Internship or Independent Study on Market Area Analysis)
4) For an earth science major, interested in monitoring and analysis of environmental resources:

MAT 311 (Ordinary Differential Equations)
CSI 201 or 202 (Introduction to C.S. or Assembly Language Programs)
GOG 304 Climate and People
GOG 417 Internship (e.g. with Department of Environmental Conservation)

7. Administration of the Program

The program will be administered as an integral part of the Department of Geography and Regional Planning. Two program supervisors/advisors will be appointed within the department. One will be a specialist in cartography/remote sensing and the other will specialize in spatial analysis. The present Remote Sensing/Cartography Laboratories are recognized as having special resource needs in the Departmental allocation of S & E. If adequate resources are provided for the department as a whole the program will begin operation under a continuation of this arrangement.

8. Projected Five-year Enrollment

Based on our experience and our projections of demand, we expect to award approximately 25 Certificates in the fifth operating year of the program.

9. Resource Needs

The department has well-equipped cartography and remote sensing laboratories, a dark room and computer terminals with access to the SPERRY
and DEC systems. The laboratories suffer under some constraints on the S & E funds required to stock consumables (e.g. developing fluid, paper stock, up-to-date satellite imagery and maps). More S & E and equipment support will be needed, but the cartography and remote sensing components of the program are up and running.

The University mainframe computer has for years provided an adequate though not ideal environment for spatial analysis. It is highly desirable that more in-house computing capacity be provided. Practical experience in working with a local computer is an indispensable part of training in GISSA. Last year a MASSCOMP super micro computer was the centerpiece of the department's equipment request. No firm decision has apparently yet been made on this request at the University level. The request will be repeated in this year's AER cycle.

Remote sensing equipment on hand includes:

a. IMPAC digital image analysis system
b. RIPS (Remote image processing system)
c. Software to analyze images and create maps, assorted aerial platform data, map digitization etc.
d. Video image digitizer
e. Spot densitometer
f. Zoom transfer scope
g. Digital planimeter
h. Zoom stereoscope
i. Backlit projector, image analyzer
j. Library of air-photo and satellite imagery

Cartography equipment on hand includes:

a. Microcomputer based high resolution digital graphics system
b. Houston Instruments 11" x 17" pen plotter
c. Houston Instruments 11" x 11" 200 ppi digitizing tablet
d. Miscellaneous in-house software for digitizing, plotting and image display
e. Complete photographic darkroom including flat bed copy camera, platemaker, vacuum
f. Kargl enlarger reducer
g. Diazo machine
A long-term need (not required for starting the program, but imperative if it is to be a success in the long run) is an integrated image-processing/G.I.S. system. Hardware and software would total about $40,000. The MASSCOMP system (about $25,000) could provide the hardware.

Temporary Service Funds and Lines: None

S & E Funds: The Certificate Program will require about $4,000. p.a. for consumables (e.g. imagery, disks, paper, darkroom supplies). This is roughly double the amount of the Department's S & E allocation currently assigned to cartography and remote sensing. The program will therefore need an additional $2,000. This cannot be met by transfers from other departmental resources, since other programs in the department are also seriously short of supplies and expenses.

Assistantships: A one-half assistantship ($2,750.) would be indispensable in the first year or two of the program. In the long run at least one more full assistantship, and preferably two, will be needed to help with the intensive laboratory supervision and computer programming associated with GISSA.

10. Program Relationship to other University Programs and to the Campus Mission

The program will be developed with minimum disruption within the existing Department of Geography and Regional Planning. Consultation with other affected units will continue (e.g. The new course proposal for GOG 496 was discussed and approved by the chair of Computer Science). The proposed program capitalizes on existing departmental resources in a way that will be cost effective and entirely consistent with the University's mission. The program will contribute specifically to training students for work in government, planning and private agencies in the Capital District and elsewhere, and will
expand the connections the department has already built up with many agencies in the area through research, consulting and internship activities.

11. Statement of Impact on the Region and the State

As implied above a real need exists for the Certificate program on campus and in the Capital District with its dense regional concentration of public and private agencies that consume spatial data base and information services.

The principal way in which the program will serve Eastern New York and Western New England will be in providing trained professionals (e.g. Federally certifiable cartographers) who are much in demand in state and local government and in private businesses.

The second major way in which the program will be felt in the region will be in a significant expansion of the department's contract, consulting and internship support for a very wide range of agencies. (Some of the most recent contract and internship work of the department has been with the state department of Transportation and Environmental Conservation, N.Y.S. Geological Survey, and the Capital District Regional Planning Commission).

Because it will provide a credential useful to professionals already working in the area, the program will prove particularly attractive to returning students. Prospects for developing ties with Rensselaer Polytechnic Institute and smaller schools such as Russell Sage and the College of St. Rose are also good.
IT IS HEREBY PROPOSED:

I. That the following policy pertaining to the awarding of baccalaureate degrees posthumously be approved:

Under certain circumstances, the University will award a degree posthumously to a student who dies during his/her last semester of study. The request for such action will be forwarded by the Dean of Undergraduate Studies to the chairman of the student's major department. The conditions are as follows:

1. The student must have begun attending classes in his/her final semester and compiled enough of an academic record for faculty members to certify that the student was in good academic standing as of the last class attended.

2. If the professors of the courses still needed for the student’s degree certify that the student was in good academic standing, grades of "S" may be entered on the permanent record, the student may be declared to have met the requirements for graduation, and a diploma may be issued to the family.

3. The chair of the student's major department must submit a letter of recommendation for the degree to the Dean of Undergraduate Studies. Final approval of the degree will rest with the Undergraduate Academic Council.

II. That this bill be referred to the President for his approval.

RATIONALE:

On rare occasions one of our students dies within a few months of graduation. The tragedy for the family is compounded by having the college career of its youngster also prematurely terminated. On humanitarian grounds it is desirable to make provisions for granting posthumous degrees. The issuance of the diploma would come only after a request from the family.