

UNIVERSITY SENATE
ATTENDANCE

Meeting of: December 12, 1994

Richard Farrell
Eleanor Gossett
D. Ch
Monique Havasy
Judith Baskin
A. M. Ungar
W. Lander
David Stragatz
Paul W. Wallace
Kathy Furek (for Devon Morris)
H. Hildner
S. B. Kim
J. Pasquill
Greg Atteus
Gwen Newman
J. F. Volkwein
Jim Fleming
Cory Capid
Estela Kivero
FRED DEMBOWSKI
James Cieppel
John Monfason
R. C. Frost (Frost)
Katherine Trent
John Pyle
Chris Bender

Philip Eppard
Loretta B. Smith
John Rich
Vivie HUB
by Knudlund
Steve Messner
Joel Blumenthal
J. R. Reyle
Jim Gullyho
Don Jacklet
Carol Anderson
Shirley Jones
Paul
J. S. UPDAC
LUKE McJAREN
THOMAS E. KELLER (Freedom Squad
Central Council)
DON REEB



UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

UNIVERSITY SENATE
Monday, December 12, 1994
3:30 p.m. -- Campus Center Assembly Hall

AGENDA

1. Approval of Minutes: November 14, 1994

2. President's Report
3. SUNY-wide Senate Report Paul Wallace
Vincent Aceto
4. Chair's Report
5. Council Reports
 - a. CPCA Jon Jacklet
 - b. EPC Judith Baskin
 - c. GAC David Strogatz
 - d. UAC Steve Messner
 - e. RES Peter Bloniarz
 - f. LISC Robert Frost
 - g. CAFE InduShobha Chengalur-Smith
 - h. SAC Donald Biggs
 - i. UCC James Pasquill
6. Old Business
7. New Business
 - a. University Senate Council Changes
 - b. Report on the Committee on Student Conduct Activity
 - c. Senate Bill No. 9495-01: Joint Seven Year Program in Biology/Optometry
with SUNY Optometry
 - d. Senate Bill No. 9495-02: Establishment of a New Degree Program:
Bachelor of Science in Actuarial and Mathematical Sciences
8. Adjournment





UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

UNIVERSITY SENATE
Monday, December 12, 1994
3:30 p.m. -- Campus Center Assembly Hall

AGENDA

ADDENDUM

7. **New Business**
 - e. Senate Resolution No. 9495-01R: Commencement 1995





UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

UNIVERSITY SENATE
December 12, 1994

Present: V. Aceto, C. Anderson, J. Baskin, C. Cahill, D. Collier, F. Dembowski, G. DeSole, P. Eppard, R. Farrell, R. Frost, E. Gossen, J. Gullahorn, M. Havasy, K. Hitchcock, J. Jacklet, S. Jones, T. Keller, C. Kersten, J. Kiepper, S. B. Kim, C. Knoblauch, W. Lanford, L. McLaren, S. Messner, J. Monfasani, G. Newman, J. Pasquill, J. Pipkin, D. Reeb, S. Rich, E. Rivero, J. Schulz, L. Smith, G. Stevens, D. Strogatz, H. P. Swygert, K. Trent, A. Ungar, J. S. Uppal, J. F. Volkwein, P. Wallace,

Guests: J. Blumenthal, C. Carlucci, J. Fleming, K. Turek

The meeting was called to order by Chair Schulz at 3:36 p.m. Chair Schulz asked that a item be added to the agenda under New Business. There was no objection to the addition.

1. Approval of Minutes

The minutes of the November 14, 1994, University Senate Meeting were approved as distributed.

2. President's Report

President Swygert reported on the progress of the child care center. The Campus Children's Center will operate this center which will open in January 1995.

Prior to the Intersession break, a draft paper on military recruitment will be circulated, the President said.

President Swygert noted he received communication from Interim Chancellor Burke that a voluntary hiring freeze was in effect and that the University anticipates a mid-year correction for 1994-95. Reporting on

other budget matters, the President stated the University at Albany has met its tuition revenue of \$40.7 million and that Phase 4 of the faculty computer distribution will continue.

President Swygert has met with Dr. Bartlett, the new Chancellor, and Senator K. LaValle, chair of the Higher Education Committee, to review budget issues of concern to the SUNY system.

The University at Albany will be the host campus to the Special Olympics for 1995 and 1996, the President reported.

President Swygert noted the Campus Together Day program set a tone for the community that helped us through the events related to the false assault report by a student and the subsequent arrest of her father. A number of persons from our community worked together in organizing an activity before a crisis arose, said the President, and that tone helped the community.

Security upgrades will continue including the installation of blue light phones in the women's rooms on the uptown campus as well as a physical presence of security around campus. Dr. DeSole and Vice President Doellefeld were asked to develop programs to help with the healing.

President Swygert invited the Senators to attend the Holiday Party on Friday in the Fireside Lounge.

3. SUNY-wide Senate Report

There was no report.

4. Chair's Report

There was no report.

5. Council Reports

a. CPCA: Senator Jacklet had nothing to report.

b. EPC: Senator Baskin reported that a Letter of Intent in Urban Education was referred to the Long Range Planning Committee.

c. GAC: The Council made recommendations on student petitions and revisions in graduate curriculum, reported Senator Strogatz.

- d. UAC: Senator Messner reported on the two proposals for undergraduate programs.
- e. RES: Senator Bloniarz had nothing to report.
- f. LISC: Senator Frost stated a report was received on the reorganization of computing services and LISC heard a report on the electronic library.
- g. CAFE: Senator Chengalur-Smith noted there is one case pending.
- h. SAC: There was no report.
- i. UCC: Senator Pasquill stated that UCC will meet with Mr. Zahm to discuss ideas for a faculty/staff dining facility. Safety issues were discussed as well as a proposal for a meeting. It was recommended that the two students be included on the safety committee.

6. Old Business

There was no Old Business.

7. New Business

- a. University Senate Council Changes. The changes were moved, seconded and approved.
- b. Report on the Committee on Student Conduct Activity. Dean Kim noted a decline in cheating cases. The report was accepted as distributed.
- c. Senate Bill No. 9495-01: Joint Seven Year Program in Biology/Optometry with SUNY Optometry. This program was moved, seconded and approved.
- d. Senate Bill No 9495-02: Establishment of a New Degree Program: Bachelor of Science in Actuarial and Mathematical Sciences. This program was moved, seconded and approved.
- e. Senate Resolution 9495-01R: Commencement 1995. The Resolution was moved, seconded and approved.
- f. Senate Resolution 9495-02R. Chair Schulz turned the meeting over to Chair-Elect Knoblauch. It was moved to adopt the resolution with an

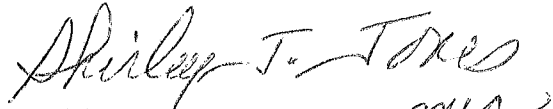
amendment to include acknowledgment of the Affirmative Action Office. The motion was seconded and approved.

Senator Frost moved the following: "Encourage further measures (such as Campus Together Day) to reinforce a deeper sense of community and to raise an awareness of the need for collective responsibility and solidarity upon which both personal and collective security are best attained." As the Resolution stands it implicates that the University community believes that the University administration should add to the security. Security comes from people themselves, Senator Frost said. The amendment was seconded and approved.

The vote on the Resolution as amended was approved unanimously.

There being no further business, the meeting adjourned at 4:25 p.m.

Respectfully submitted,


Shirley J. Jones
Secretary

**President's Report
University Senate
December 12, 1994**



1. **Progress Report on uptown campus day care center --**
 - **the "U-Kids" Child Care Center in the Dutch Quad U - Lounge:**
 - **goal is to serve children of students and employees in equal numbers**
 - **will be operated for us by the Campus Children's Center Inc. (a 10-year old day care facility at DOT next door).**
 - **University Center set to open in early January, by start of second semester**
 - **calls are now being made to parents following the lottery in mid November**
 - **Extensive renovation work underway but informal tours scheduled for next Tuesday and Wednesday at 4 p.m. Please contact Sheila Mahan if you would like to be part of a tour.**

2. **Military recruitment policy: will be circulated to exec. Comm., Student Association and GSO this week.**

 3. **Budget Update**
-
-

4. Recent events:

Acknowledge the personal and institutional pain experienced by members of the University community last week:

Positive outcomes include a unified commitment between students and staff on safety measures.

Letter distributed at door those security steps we are committed to maintaining or adding before second semester.



UNIVERSITY AT ALBANY

STATE UNIVERSITY OF NEW YORK

December 8, 1994

TO: The University Community

The events of the last 11 days have challenged all the members of the University community. As I noted in an earlier letter to the campus today, African-American men especially have been victimized, specifically by the false allegation by Kendra Gillis that she was assaulted by an African-American male. Several media outlets included this description in their accounts. Everyone should know that no University at Albany students were detained, charged, or treated as suspects by any law enforcement or University authorities. Rumors and innuendoes to the contrary are harmful, hurtful, and destructive, and are totally unfounded.

I want to commend African-American students and, indeed, all our students for your calm, intelligent and constructive response to this challenging set of circumstances.

Viewed within the context of a recent series of false accusations of African American males -- in South Carolina, Old Westbury, and Boston -- this event takes on a meaning larger than a campus incident. Each of us, no matter our race, religion or gender, has reason to be concerned about this, but we must translate our concern into constructive action to build a unified community at our University and beyond. We have done a great deal and know that we must do more and so invite all students to bring your ideas and your energy to this task.

It is just times like these, times when we feel anger, stress, and frustration, that the *Principles for a Just Community* should be a source of guidance for us as we work together to make our campus a truly welcoming place for all students. The *Principles of a Just Community* remind us that "bigotry in any form is antithetical to the University's ideals on intellectual, political and moral grounds and must be challenged." Let us reaffirm the value that racism has no place at the University at Albany. Now is the time to come together and turn to healing and to our future as a University family.

H. Patrick Swygert
President

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UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

December 9, 1994

TO: The University Community

I write to you today to restate my support of the principles stated in my letter dated December 8, 1994, attached hereto, and to reaffirm my commitment to the safety and security enhancements that we have instituted and discussed recently. They are:

Newly Implemented Advances

- Uniformed officer patrols on all six residence quadrangles.
- Proof of evidence or permission to visit now required to enter Indian Quadrangle.
- 24-hour suite room lighting on Indian Quadrangle.
- Late night and early morning hours quadrangle visitations by teams of professional staff and faculty.
- Installation of security viewing holes in Indian Quadrangle bedroom doors. (These viewing holes complement installation of suite door viewing holes done in 1992 on all residential quadrangles.)
- Appointment of President's Residential Life Safety Committee.

Long Standing Safety Programs

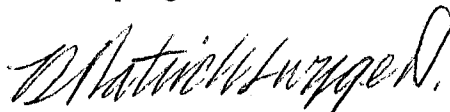
- Annual upgrades of exterior lighting on and around the academic podium and the residential quadrangles.
- A University shuttle bus service operating among the residential and academic buildings and parking lots of the uptown campus during the evening hours.
- Significant additions to the numbers of emergency blue light phones on the uptown and downtown campuses.
- Activation of 9-1-1 emergency communication system.
- "Empowerment Project" programs. Workshops on personal safety (UPD) and self-defense for women (Physical Education).

- “Safe Fall” Campaign and “Safe Spring” Campaign that involve distributing safety information to both the on- and off-campus residences of our students.
 - The program “A Few Good Men” (Health & Counseling Services).
 - The “Whistle Watch Program” distributing emergency whistles to all students and staff.
 - Appointment of “Sexual Assault Prevention Coordinator” - Dr. Daria Papalia (442-5800).
 - The decade-old “Don’t Walk Alone” Safety Escort Service.
 - UPD blotter in *Albany Student Press (ASP)*
 - The “Lite Project” (distribution of flashlights)
-
- Immediate notification to students whenever incidents occur either on- or off-campus that could compromise their personal safety.

Currently Under Consideration

- University staff is reviewing the possibility of gates at certain campus entrances.
- The feasibility of further securing residential quadrangles is being reviewed by Physical Plant..
- The assignment of paid and volunteer student patrols on the podium seven nights a week is being planned for implementation during the Spring Semester.
- The Purchasing Department is soliciting bids for purchase of video camera equipment that would be utilized in quadrangle entrances.

I and my staff view safety on this campus as requiring constant vigilance and reinvestment. I pledge to you to do whatever is necessary to maintain personal safety for all persons of the University at Albany family. All of the security enhancements currently in place will continue throughout the Spring Semester.



H. Patrick Swygert
President



UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

December 8, 1994

Today, December 8, New York State Police arrested the father of Kendra Gillis and charged him with third degree assault for beating her in her residence hall room in Cayuga Hall on November 28 in the early morning.

Our hearts go out to Kendra, her mother, and her siblings. In times such as this, we must remember that she already has been victimized, and we must not compound her pain by blaming her for being a victim. This incident must not discourage crime victims from coming forward; we urge each member of the community to continue to cooperate with University Public Safety in reporting all crimes on or off campus.

African-American men have been also victimized by these events, specifically by her description of her assailant as an African-American male. Several media outlets included it in their accounts. No University at Albany students were detained, charged, or treated as suspects by any law enforcement or University authorities. Rumors and innuendoes to the contrary are harmful, hurtful, and destructive, and are totally unfounded.

I urge all students, faculty and staff to continue to work together to focus on what unites us as a community. The safety measures we have taken will remain in effect and will be further enhanced in the months ahead, for the safety and security of all members of the University family.

H. Patrick Swygert
President



UNIVERSITY SENATE COUNCIL CHANGES

Propose to Council

Mohammed Nur-Awaleh, CPCA
Curt Pyke, EPC
Kisalaya Basu, UAC
Johanna Mitchell, GAC
Chris Jezewsky, GAC
*Monique Havasy, GAC
Maria Planagi, SAC

The above are graduate students appointed to Senate Councils.

*Senator



UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

June 10, 1994

MEMORANDUM

TO: Audrey B. Champagne
Chair, University Senate

RE: Committee on Student Conduct Activity

Attached is a summary of student conduct cases for which the Committee on Student Conduct has responsibility. The data indicates there were significantly fewer cases this past year when compared to the two previous years.

While formal judicial referrals for cases of academic dishonesty have declined, we are experiencing an increase in cases of disruptive conduct and harassing behavior. In all, the number of cases logged with the Committee on Student Conduct (14) are relatively few when compared to the caseload in the residence halls (866) and behavior in other areas of the campus beyond the residence halls and classrooms (61). For ease of comparison, I have provided data from the previous two academic years for Committee on Student Conduct cases.

Please feel free to contact me if you have questions or if you require additional information.

John M. Murphy
Director of Judicial Affairs

Attachment

c. Vice President Livingston
Vice President Hitchcock
Dean Sung Bok Kim
Chairman Cy Knoblauch



THE UNIVERSITY AT ALBANY
AS OF JUNE 1, 1994
REPORT OF THE COMMITTEE ON STUDENT CONDUCT
FOR ACADEMIC YEAR 1993-94

<u>Types of Infraction</u>	<u># of Cases</u>	<u>Not Responsible*</u>	<u>Cases Pending</u>	<u>-----Penalty-----</u>	
				<u>Suspend</u>	<u>Prob Notes</u>
Cheating	3	0	1	2	1
Plagiarism	2	0	1	1	0
Other	0	0	0	0	
<hr/>					
1993-94 Subtotal	5	0	2	3	1
1992-93 Subtotal	17	5	0	11	1
1991-92 Subtotal	31	10	0	20	1
* * * * *					
Harassment/Assault	4	1	0	2	1
Forgery/Fraud	0	0	0	0	0
Disruptive Behavior	5	0	0	0	5
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1993-94 Subtotal	9	1	0	2	6
1992-93 Subtotal	3	0	0	1	2
1991-92 Subtotal	8	1	0	1	6
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TOTAL 1992-93	14	1	2	5	7
TOTAL 1992-93	20	5	0	12	3
TOTAL 1991-92	39	11	0	21	7

*Includes cases withdrawn, dismissed or not guilty verdict

Prepared by Judicial Affairs,
Office of the Vice President
for Student Affairs

June 8, 1994

UNIVERSITY SENATE
UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Introduced by: Undergraduate Academic Council

Date: November 28, 1994

Establishment of a Joint Seven Year Program in Biology/Optometry
with SUNY Optometry

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

1. That a joint seven year program in Biology/Optometry between the University at Albany and SUNY Optometry be established.
2. That the Bill be forwarded to the President for approval.



UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

MEMORANDUM

April 14, 1994

TO: Chair, Undergraduate Academic Council
FROM: *Robert M. Galand for*
Judith A. Gillespie
Dean

SUBJECT: Joint Seven Year Preoptometry/Optomety Program

The University at Albany has received recently authorization to introduce a new program: Joint Seven Year Biology/Optomety Program leading to the B.S. and O.D. degrees.

The requirements of the joint program call for 30 credits taken during the first year at SUNY-Optometry to be accepted as transfer credits for completion of the B.S. degree. Therefore, on behalf of the Department of Biological Sciences and its joint program, I am requesting a waiver of the residence requirement that "30 of their last 36 credits in courses for which they registered at the Albany Campus of the University." This is necessary because this joint program calls for its students to take their senior year as first year graduate students in the O.D. program at SUNY-Optometry. I have attached a copy of the Memorandum of Agreement.

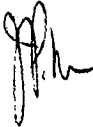
If you have any questions, please contact Professor Joseph Mascarenhas or Bob McFarland in my office.

JAG:mf

cc: Prof. Mascarenhas
Mr. McFarland

**DEPARTMENT OF BIOLOGICAL SCIENCES
MEMORANDUM**

TO: Dean Judith Gillespie

FROM: Joseph P. Mascarenhas, Chairperson 

DATE: April 11, 1994

SUBJECT: Joint Seven Year Preoptometry/Optometry Program

The Department is pleased that the above program has been approved by the State Education Department (see attachment). Dr. John Mackiewicz will serve as the program coordinator and student advisor.

This program has been designed for the students to spend their first three years here at the University and then attend SUNY State College of Optometry for four years to complete both the B.S. and O.D. degrees. The 30 credits taken during the first year at SUNY-Optometry will be accepted as transfer credits for completion of the B.S. degree. Therefore, it is necessary for us to request a waiver of the 30 credit Residence Requirement for students enrolled in this program. I have attached a schedule for this joint program which outlines the distribution of credits for the B.S. degree. Since this request must be considered by the Undergraduate Academic Council, I have attached a copy of the Memorandum of Agreement.

If you require additional information, please do not hesitate to contact me or John Mackiewicz.

cc: J. Mackiewicz
L. Wilson, Academic Services

GENERAL INFORMATION

ON

Joint Seven Year Biology/Optometry Program

Biology B.S. & Optometry O.D. Degrees

The State College of Optometry, State University of New York, and University at Albany, State University of New York, have agreed to a formal academic affiliation on optometric education in which up to six students per year may be accepted by both institutions to a seven year biology/optometry program of study. Students will be awarded the Bachelor of Science (B.S.) degree after completion of the requirements at the end of the fourth year. Then, at the end of the seventh year and completion of all necessary requirements the students will be awarded the Doctor of Optometry (O.D.) degree.

Students interested in making application to this program shall submit the necessary application materials to the University at Albany pre-health adviser by the first Monday in February of the spring semester of the freshman year (transfer students are ineligible). Students shall be selected by a committee, designated by an executive officer of each college as the representatives of both participating institutions. The selection of joint degree students will be based on written application materials (including an essay expressing reasons for desired participation in this program), academic progress, and a personal interview, (held on the second Monday in March) - using the following criteria:

- o maturity and motivation;
- o an expression of an interest in, and basic understanding of, the optometric profession;
- o a minimum of a 3.2 grade point average on a scale of 4.0 on undergraduate course work completed at the time of application;

Students will matriculate at the University at Albany for three years, where they will pursue a curriculum (see attached curriculum) approved by both participating institutions. During the freshman year these students will be advised in the Advisement Services Center of Undergraduate Studies by the Pre-Health Professions Adviser. Once students have been accepted to the program, they will be given a provisional acceptance from the State College of Optometry, with a final acceptance offered after completion of all other requirements of the joint program. After receiving this provisional acceptance these students will be advised by Distinguished Teaching Professor, Dr. John Mackiewicz in the Department of Biological Sciences. The curriculum, henceforth known as the joint degree track curriculum, will be structured to enable: completion of the University at Albany requirements for this program inclusive of all State College of Optometry, SUNY prerequisite course work for the professional program with individual grades of C or higher.

A SUNY Optometry representative will visit the University at Albany campus once a year to meet with joint-degree students. Prior to the fall semester of the junior year, students are required to meet with optometrists (SUNY-Optometry will make recommendations if needed) to discuss the profession.

Students in the joint degree program must submit a college transcript to the State College of Optometry, SUNY as requested on a yearly basis. Joint degree students also are required to interview with the Pre-Health Professions Advisory Committee during the spring semester of the sophomore year (this includes submitting all standard pre-health file materials by the 1st Monday in February of that semester). These students must also request the final application from the State College of Optometry, SUNY during the summer before the junior year, and complete all final application requirements as directed by the State College of Optometry.

In order for students to continue in the joint degree program they must maintain a minimum 3.2 overall grade point average and a 3.2 grade point average in all science and math prerequisite undergraduate courses, with no grade lower than a C. Joint degree students must also attain scores on the Optometry Admissions Test (taken in either the fall or spring of the third year) equal to 320, and submit to the State College of Optometry a Committee Evaluation from the Pre-Health Professions Advisory Committee. At the completion of the third year, at least ninety credits at the University at Albany and the above conditions having been met, the joint degree students will be admitted to the State College of Optometry, SUNY.

It is agreed that students enrolled in this program who do not meet the requirements to begin the first year of study at State College of Optometry, SUNY (Senior year - for Biology BS degree) may apply for admission to the State College of Optometry, SUNY through regular channels and procedures.

FOR FURTHER INFORMATION CONTACT:

Dr. John Mackiewicz
BIO 213
The University at Albany
1400 Washington Avenue
Albany, NY 12222
(518) 442-4346

OR

Leanne Wilson
ASC/US - LI-36
The University at Albany
1400 Washington Avenue
Albany, NY 12222
(518) 442-3960

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MEMORANDUM OF AGREEMENT

Joint Seven Year Biology/Optomtry Program

Biology B.S. & Optometry O.D. Degrees

The State College of Optometry, State University of New York, and University at Albany, State University of New York, hereby agree to a formal academic affiliation on optometric education in which up to six students per year may be accepted by both institutions to a seven year biology/optometry program of study. Upon completion of the requirements for each portion of the program students will be awarded the Bachelor of Science (B.S.) and the Doctor of Optometry (O.D.) degrees respectively.

Students interested in making application to this program shall submit the necessary application materials to the University at Albany pre-health adviser by the stated deadline in the middle of the spring semester of the freshman year (transfer students are ineligible). It is agreed that the students shall be selected by a committee, designated by an executive officer of each college as the representatives of both participating institutions. The selection of joint degree students will be based on written application materials (including an essay expressing reasons for desired participation in this program), academic progress, and a personal interview, - using the following criteria:

- o maturity and motivation;
- o an expression of an interest in, and basic understanding of, the optometric profession;
- o a minimum of a 3.2 grade point average on a scale of 4.0 on undergraduate course work completed at the time of application;
- o a minimum of an overall 3.2 grade point average and a 3.2 grade point average in all science and math prerequisite undergraduate course work completed at the time of application. All science and math prerequisite courses must be satisfied with a grade of C or higher. Recommendation from the University at Albany Pre-professional Health Careers Advisory Committee is required.

Students will matriculate at the University at Albany for three years, where they will pursue a curriculum approved by both participating institutions. During the freshman year these students will be advised in the Center for Undergraduate Education by the Pre-Health Professions Adviser. Once students have been accepted to the program, they will be advised by the faculty member in the biology department who has been designated to advise this specific group of students. The curriculum, henceforth known as the joint degree track curriculum, will be structured to enable: completion of the University at Albany requirements for this program inclusive of all SUNY College of Optometry prerequisite course work for the professional program with individual grades of C or higher.

(2)

At the completion of the third year and at least ninety credits at the University at Albany, and upon maintaining a grade point average of at least 3.2 in the required joint degree track curriculum, and attaining scores on the Optometry Admissions Test (taken in either the fall or spring of the third year) equal to 320, as well as passing reasonable interview standards, the students will be admitted to the SUNY College of Optometry.

The University at Albany agrees to award the Bachelor of Science degree in Biology to these students upon satisfactory completion of all university requirements and satisfactory completion of their first year of professional study at the State College of Optometry.

Both participating institutions agree jointly to publicize and to promote this program and to recruit students in accordance with the joint statement of principles of good practice in college admission and recruitment of the American Council on Education and the National Association of College Admission Counselor.

Further, the University at Albany and the SUNY College of Optometry agree to provide counseling, programming, and advising services on matters relating to the curriculum and to the profession.

It is agreed that students enrolled in this program who do not meet the requirements to begin the first year of study at SUNY College of Optometry (Senior year - for Biology BS degree) may apply for admission to the SUNY College of Optometry through regular channels and procedures.

Either party to this agreement may cancel the agreement by formal registered notification to be received by October 1 in the year preceding the date of cancellation. All students who are enrolled in the program at the time of such notification shall be continued in the program and shall be eligible for acceptance by the state College of Optometry, State University of New York under the terms of the agreement.

SIGNED:

H. Patrick Swygart, President
The University at Albany
State University of New York

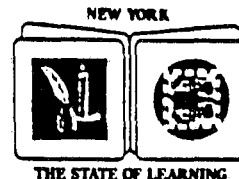
Alden N. Haffner, President
The State College of Optometry
State University of New York

DATE: _____

DATE: _____

a:/agree

*Dr. Gullaborn
&
Dr. Hitchcock*



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, N.Y. 12230

ASSISTANT COMMISSIONER
OFFICE OF QUALITY ASSURANCE

March 18, 1994

Dr. Richard S. Jarvis
Vice Provost for Academic Programs
and Research
State University of New York
State University Plaza
Albany, NY 12246

Proposal 1074-93

Dear Dr. Jarvis:

This letter is in response to Joseph C. Burke's communication of December 15, 1993 requesting registration of a proposed Biology/Optomety program leading to the Bachelor of Science and Doctor of Optometry degrees to be offered jointly by the State University of New York at Albany and the State University of New York College of Optometry.

I am pleased to inform you that on the basis of our review the program detailed on the attached listing from the Inventory of Registered Programs is registered for professional purposes under Subchapter A of the Regulations of the Commissioner of Education (Chapter II of Title 8 of the Official Compilation of Codes, Rules and Regulations of the State of New York) until September 1, 1995. After that date, registration will be extended annually until the Department's next review is conducted. Based on conversations with Michael Heiberger, Director of Planning and Evaluation at the College of Optometry, and Ruth E. Baines of your staff, it is understood that while students may be required to meet progression criteria, the involved institutions can require only *one* admission to the program.

New registration is required for any existing curriculum in which major changes are made that affect its title, focus, design, requirements for completion, or mode of delivery. Therefore, I ask that you contact this office prior to initiating a significant change in this program.

I wish you and your colleagues success with the program.

Sincerely,

Mike Van Ryn

Attachment

cc: Joseph C. Burke
H. Patrick Swygert ✓
Alden N. Haffner

RECEIVED

MAR 26 1994

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OFFICE OF THE
PRESIDENT

NEW YORK STATE EDUCATION DEPARTMENT
 INVENTORY OF REGISTERED PROGRAMS
 REGISTRATION CHANGE REPORT

03/18/1994

241500 STATE UNIVERSITY OF NEW YORK COLLEGE OF OPTOMETRY

PROG CODE	PROGRAM TITLE	HEGIS	AWARD
19187	BIOLOGY		NOT-GRANTING
M/I	WITH 210500 SUNY ALBANY	0401.00	BS
M/A	OPTOMETRY	1209.00	OD
M/I	WITH 210500 SUNY ALBANY		NOT-GRANTING
	TAP ELIGIBLE		
		FOR AWARD = BS	
	APTS ELIGIBLE		
		FOR AWARD = BS	
	VVTA ELIGIBLE		
		FOR AWARD = BS	
	PROGRAM ADDED	REG DATE = 03/1994	
	INST ID ADDED	241500 SUNY COL OF OPTOMETRY	
	TAP ELIGIBLE		
		FOR AWARD = OD	
	APTS NOT ELIGIBLE		
		FOR AWARD = OD	
	VVTA NOT ELIGIBLE		
		FOR AWARD = OD	
	CERT/LICENSE ADDED	OPTOMETRIST	TYPE = LIC QUAL 03/1994
		FOR AWARD = OD	
	AWARD ADDED	OD	

NEW YORK STATE EDUCATION DEPARTMENT
 INVENTORY OF REGISTERED PROGRAMS
 REGISTRATION CHANGE REPORT

03/18/1994

210500 STATE UNIVERSITY OF NEW YORK AT ALBANY

PROG CODE	PROGRAM TITLE	HEGIS	AWARD
19187	BIOLOGY	0401.00	BS
M/I	WITH 241500 SUNY COL OF OPTOMETRY		NOT-GRANTING
M/A	OPTOMETRY		NOT-GRANTING
M/I	WITH 241500 SUNY COL OF OPTOMETRY	1209.00	OD
	TAP ELIGIBLE	-	
		FOR AWARD = BS	
	APTS ELIGIBLE	-	
		FOR AWARD = BS	
	VVTA ELIGIBLE	-	
		FOR AWARD = BS	
	PROGRAM ADDED	-	REG DATE = 03/1994
	INST ID ADDED	-	241500 SUNY COL OF OPTOMETRY
	TAP ELIGIBLE	-	
		FOR AWARD = OD	
	APTS NOT ELIGIBLE	-	
		FOR AWARD = OD	
	VVTA NOT ELIGIBLE	-	
		FOR AWARD = OD	
	CERT/LICENSE ADDED	-	OPTOMETRIST TYPE = LIC QUAL 03/1994
		FOR AWARD = OD	
	AWARD ADDED	-	OD

SCHEDULE FOR SUNY-OPTOMETRY JOINT PROGRAM

The following schedule is for those students who will apply or have already been accepted for the joint program with SUNY State College of Optometry at the end of the freshman year (transfer students ineligible). This program requires that students complete three years (90 credits) of study at The University at Albany with a major in Biology, B.S. degree. Students attend SUNY-Optometry for the fourth year of study, beginning the first year of the professional program. With the completion of the fourth year of study, the University at Albany will accept as transfer credits - twenty-four credits of Biology and six credits of Physics electives. Students in this program should plan to take the Optometry Admission Test (OAT) in October or February of the third year at The University at Albany.

FALL - SEMESTER 1		SPRING - SEMESTER 2	
A BIO 110F	4 crs.	A BIO 111N	4 crs.
A CHM 120N	3 crs.	A CHM 121N	3 crs.
A CHM 122a	1 cr.	A CHM 122b	1 cr.
A MAT 112Y	4 crs.	A MAT 113Y	4 crs.
A S.S. w/"M"	3 crs. <social science>	A S.S. w/"M"	3 crs.
<hr/>		<hr/>	
15 crs.		15 crs.	

FALL - SEMESTER 3		SPRING - SEMESTER 4	
A BIO 212	4 crs.	A BIO *	4 crs.
A CHM 216a	3 crs.	A CHM 216b	3 crs.
A CHM 217a	1 cr.	A CHM 217b	1 cr.
A PHY 105N	3 crs.	A PHY 108N	3 crs.
A PHY 106	1 cr.	A PHY 109	1 cr.
A WRLD. CULT.*	3 crs.	A VALUES*	3 crs.
<hr/>		<hr/>	
15 crs.		15 crs.	

FALL - SEMESTER 5		SPRING - SEMESTER 6	
A MAT 108Y	3 crs.	A 300-400 W.I.	3 crs.
A WRLD. CULT.*	3 crs.	A VALUES*	3 crs.
A ENG E/L**	3 crs.	A ENG E/L**	3 crs.
TWO BIO ELECT.*	6 crs.	TWO BIO ELECT.*	6 crs.
<hr/>		<hr/>	
15 crs.		15 crs.	

***, **, # VERY IMPORTANT NOTES:**

*In semesters three and four EITHER the world culture course or the values course MUST also meet the HUMAN DIVERSITY requirement. If the HUMAN DIVERSITY requirement is not met during the second year of study, then it absolutely MUST overlap with either the world culture course or the values course taken during the third year of study.

**One of the English literature courses taken in the third year MUST be writing intensive. The student should strongly consider taking it in the FALL rather than the SPRING semester since the SPRING semester will include the upper level writing requirement.

#The biology electives MUST be 300-400 level courses in BIOLOGY which count towards the BIOLOGY MAJOR, exclusive of A BIO 303, 325, 341, 342, 365, 406, 410, & 411 (credit which will be taken during first year at SUNY-Optometry).

OTHER INFORMATION:

NINETY credits of coursework MUST be completed on The University at Albany campus. Therefore if a student wishes to use pre-freshman credit he/she must take other credits at The University at Albany in order that the total credits completed here equals 90. It must also be noted that the Biology department generally advises students not to keep AP BIOLOGY credit, and strongly urges students to take the general biology courses here.

SUMMER coursework completed between the first and second year, or between the second and third year AT THE UNIVERSITY AT ALBANY is acceptable for this program. (OPTOM)

FOURTH YEAR at SUNY-OPTOMETRY:

	<u>SUNY-OPTOMETRY COURSES</u>	<u>UNIVERSITY AT ALBANY EQUIVALENTS</u>	
FALL	General Histology	A BIO 406	4 crs.
	Physiology & Biochemistry I	A BIO 410/411	5 crs.
	Geometric Optics I	A PHY 10E	2 crs.
WINTER	Gross Anatomy I	A BIO 303	3 crs.
	Physiology & Biochemistry II	A BIO 365	3 crs.
	Neuroscience I	A BIO 342	2 crs.
	Geometric Optics II	A PHY 10E	2 crs.
SPRING	Gross Anatomy II	A BIO 325	4 crs.
	Neuroscience II	A BIO 341	3 crs.
	Physical Optics	A PHY 10E	2 crs.

TOTAL CREDITS FOR FOURTH YEAR OF STUDY AT SUNY-OPTOMETRY: 30 CRS.



UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

RECEIVED

APR 13 1994

UNIVERSITY AT ALBANY
COLLEGE OF
ARTS & SCIENCES

TO: Dean J. Gillespie

FROM: Dr. J. S. Mackiewicz, Chair.
Pre-Professional Health Committee

DATE: April 11, 1994

SUBJ: Residency Waiver, Optometry Program

Paul Mackiewicz

As you are aware the joint Seven Year Biologyh/Optometry Program leading to Biology B.S. and Optometry O.D. degrees has been approved for this University (copies of the Memorandum of Agreement and General Information of the program are attached).

An essential feature of this program is that at the end of their third year on this campus successful candidates will transfer and complete their fourth and subsequent years at the State College of Optometry in New York City. Upon completing their fourth year at the State College of Optometry, the student will receive a B.S. from the State University of New York at Albany.

Because students in this program will therefore not be in residency on this campus for their last 30 credits, a current requirement for graduation, I hereby request that a general waiver of the senior residency requirement be granted to all students in this joint Biology B.S. and Optometry O.D. program. Students are required to complete at least ninety-credits on the Albany Campus before transferring to the N.Y. City campus.

Thank you for considering this matter. Should you have any questions about the program please do not hesitate to contact me or Ms. Leanne Wilson in ASC (442-3960).

cc:Ms. Leanne Wilson



MEMORANDUM OF AGREEMENT

Joint Seven Year Biology/Optometry Program

Biology B.S. & Optometry O.D. Degrees

The State College of Optometry, State University of New York, and University at Albany, State University of New York, hereby agree to a formal academic affiliation on optometric education in which up to six students per year may be accepted by both institutions to a seven year biology/optometry program of study. Upon completion of the requirements for each portion of the program students will be awarded the Bachelor of Science (B.S.) and the Doctor of Optometry (O.D.) degrees respectively.

Students interested in making application to this program shall submit the necessary application materials to the University at Albany pre-health adviser by the stated deadline in the middle of the spring semester of the freshman year (transfer students are ineligible). It is agreed that the students shall be selected by a committee, designated by an executive officer of each college as the representatives of both participating institutions. The selection of joint degree students will be based on written application materials (including an essay expressing reasons for desired participation in this program), academic progress, and a personal interview, - using the following criteria:

- o maturity and motivation;
- o an expression of an interest in, and basic understanding of, the optometric profession;
- o a minimum of a 3.2 grade point average on a scale of 4.0 on undergraduate course work completed at the time of application;
- o a minimum of an overall 3.2 grade point average and a 3.2 grade point average in all science and math prerequisite undergraduate course work completed at the time of application. All science and math prerequisite courses must be satisfied with a grade of C or higher. Recommendation from the University at Albany Pre-professional Health Careers Advisory Committee is required.

Students will matriculate at the University at Albany for three years, where they will pursue a curriculum approved by both participating institutions. During the freshman year these students will be advised in the Center for Undergraduate Education by the Pre-Health Professions Adviser. Once students have been accepted to the program, they will be advised by the faculty member in the biology department who has been designated to advise this specific group of students. The curriculum, henceforth known as the joint degree track curriculum, will be structured to enable: completion of the University at Albany requirements for this program inclusive of all SUNY College of Optometry prerequisite course work for the professional program with individual grades of C or higher.

(2)

At the completion of the third year and at least ninety credits at the University at Albany, and upon maintaining a grade point average of at least 3.2 in the required joint degree track curriculum, and attaining scores on the Optometry Admissions Test (taken in either the fall or spring of the third year) equal to 320, as well as passing reasonable interview standards, the students will be admitted to the SUNY College of Optometry.

The University at Albany agrees to award the Bachelor of Science degree in Biology to these students upon satisfactory completion of all university requirements and satisfactory completion of their first year of professional study at the State College of Optometry.

Both participating institutions agree jointly to publicize and to promote this program and to recruit students in accordance with the joint statement of principles of good practice in college admission and recruitment of the American Council on Education and the National Association of College Admission Counselor.

Further, the University at Albany and the SUNY College of Optometry agree to provide counseling, programming, and advising services on matters relating to the curriculum and to the profession.

It is agreed that students enrolled in this program who do not meet the requirements to begin the first year of study at SUNY College of Optometry (Senior year - for Biology BS degree) may apply for admission to the SUNY College of Optometry through regular channels and procedures.

Either party to this agreement may cancel the agreement by formal registered notification to be received by October 1 in the year preceding the date of cancellation. All students who are enrolled in the program at the time of such notification shall be continued in the program and shall be eligible for acceptance by the state College of Optometry, State University of New York under the terms of the agreement.

SIGNED:

H. Patrick Swygert, President
The University at Albany
State University of New York

Alden N. Haffner, President
The State College of Optometry
State University of New York

DATE: _____

DATE: _____

a:/agree

GENERAL INFORMATION

ON

Joint Seven Year Biology/Optomtry Program

Biology B.S. & Optometry O.D. Degrees

The State College of Optometry, State University of New York, and University at Albany, State University of New York, have agreed to a formal academic affiliation on optometric education in which up to six students per year may be accepted by both institutions to a seven year biology/optometry program of study. Students will be awarded the Bachelor of Science (B.S.) degree after completion of the requirements at the end of the fourth year. Then, at the end of the seventh year and completion of all necessary requirements the students will be awarded the Doctor of Optometry (O.D.) degree.

Students interested in making application to this program shall submit the necessary application materials to the University at Albany pre-health adviser by the first Monday in February of the spring semester of the freshman year (transfer students are ineligible). Students shall be selected by a committee, designated by an executive officer of each college as the representatives of both participating institutions. The selection of joint degree students will be based on written application materials (including an essay expressing reasons for desired participation in this program), academic progress, and a personal interview, (held on the second Monday in March) - using the following criteria:

- o maturity and motivation;
- o an expression of an interest in, and basic understanding of, the optometric profession;
- o a minimum of a 3.2 grade point average on a scale of 4.0 on undergraduate course work completed at the time of application;

Students will matriculate at the University at Albany for three years, where they will pursue a curriculum (see attached curriculum) approved by both participating institutions. During the freshman year these students will be advised in the Advisement Services Center of Undergraduate Studies by the Pre-Health Professions Adviser. Once students have been accepted to the program, they will be given a provisional acceptance from the State College of Optometry, with a final acceptance offered after completion of all other requirements of the joint program. After receiving this provisional acceptance these students will be advised by Distinguished Teaching Professor, Dr. John Mackiewicz in the Department of Biological Sciences. The curriculum, henceforth known as the joint degree track curriculum, will be structured to enable: completion of the University at Albany requirements for this program inclusive of all State College of Optometry, SUNY prerequisite course work for the professional program with individual grades of C or higher.

(2)
A SUNY Optometry representative will visit the University at Albany campus once a year to meet with joint-degree students. Prior to the fall semester of the junior year, students are required to meet with optometrists (SUNY-Optometry will make recommendations if needed) to discuss the profession.

Students in the joint degree program must submit a college transcript to the State College of Optometry, SUNY as requested on a yearly basis. Joint degree students also are required to interview with the Pre-Health Professions Advisory Committee during the spring semester of the sophomore year (this includes submitting all standard pre-health file materials by the 1st Monday in February of that semester). These students must also request the final application from the State College of Optometry, SUNY during the summer before the junior year, and complete all final application requirements as directed by the State College of Optometry.

In order for students to continue in the joint degree program they must maintain a minimum 3.2 overall grade point average and a 3.2 grade point average in all science and math prerequisite undergraduate courses, with no grade lower than a C. Joint degree students must also attain scores on the Optometry Admissions Test (taken in either the fall or spring of the third year) equal to 320, and submit to the State College of Optometry a Committee Evaluation from the Pre-Health Professions Advisory Committee. At the completion of the third year, at least ninety credits at the University at Albany and the above conditions having been met, the joint degree students will be admitted to the State College of Optometry, SUNY.

It is agreed that students enrolled in this program who do not meet the requirements to begin the first year of study at State College of Optometry, SUNY (Senior year - for Biology BS degree) may apply for admission to the State College of Optometry, SUNY through regular channels and procedures.

FOR FURTHER INFORMATION CONTACT:

Dr. John Mackiewicz
BIO 213
The University at Albany
1400 Washington Avenue
Albany, NY 12222
(518) 442-4346

OR

Leanne Wilson
ASC/US - LI-36
The University at Albany
1400 Washington Avenue
Albany, NY 12222
(518) 442-3960

UNIVERSITY SENATE
UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Introduced by: Undergraduate Academic Council

Date: November 28, 1994

Establishment of a New Degree Program

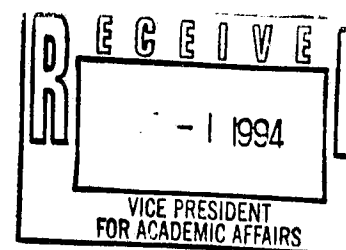
Bachelor of Science in Actuarial and Mathematical Sciences

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

1. A new Bachelor of Science Program in Actuarial and Mathematical Sciences be established.
2. That the Bill be forwarded to the President for approval and implementation.



STATE UNIVERSITY OF NEW YORK



**ACTING PROVOST AND
VICE CHANCELLOR FOR
ACADEMIC AFFAIRS**

System Administration
State University Plaza
Albany, NY 12246

518/443-5152
FAX: 518/443-5321
JARVISRS@SNYCENVA

September 27, 1994

President H. Patrick Swygart
State University at Albany
1400 Washington Avenue
Albany, N.Y. 12222

Dear Pat:

Your Letter of Intent for a program entitled Actuarial & Mathematical Science leading to a Bachelor of Science degree has been approved. If you plan to develop a proposal for this program, please advise this office and proceed according to Memorandum to Presidents, Volume 88 Number 10, "Revised Guidelines for Submission of Academic Program Proposals."

The title is approvable and the HEGIS code will be #1799. Enrollment data for similar programs are provided in the enclosed excerpts from the APIS report prepared by the Office of Institutional Research and Planning.

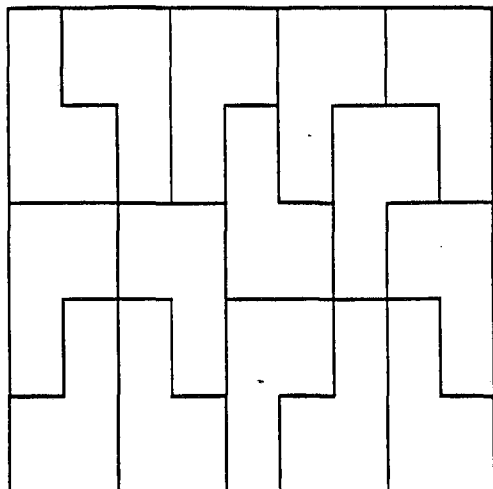
Please let us know if we can be of assistance.

Sincerely,

Richard S. Jarvis
Acting Provost and
Vice Chancellor for Academic Affairs

Enclosure

xc: Vice President Hitchcock ✓
Mr. Burns



**State University of New York
at Albany**

Department of Mathematics
and Statistics

Albany NY 12222

MEMORANDUM

To: Judith Gillespie, Dean
The College of Arts and Sciences

From: George E. Martin, Undergraduate Committee Chair(1992-1993)
Department of Mathematics and Statistics

Date: December 8, 1993

This is to present to you a Program Proposal for a new undergraduate combined major/minor in Actuarial and Mathematical Sciences to be offered by the Department of Mathematics and Statistics. The proposal was approved by the department on February 3, 1993. A copy of the Letter of Intent was sent to you on July 22, 1993 by Vice President Hitchcock in a memo to Judith Baskin, Chair of EPC. It apparently will take nearly a year to get the letter of intent to SUNY. This should not be a contraversial program, since it makes no new demands and requires no new resourses from the department, from the college, or from the university. Could the campus approval process be started at the same time the Letter of Intent is under consideration by SUNY?

STATE UNIVERSITY OF NEW YORK
ACADEMIC PROGRAM PROPOSAL

COVER PAGE

Campus: University at Albany SUNY

Date: November 30, 1993

Proposed Program Title: Actuarial and Mathematical Sciences

Proposed Degree: Bachelor of Science.

HEGIS Classification and Number: 1701

Department that will offer the program: Mathematics and Statistics

Proposed Beginning Date: September 1994

Projected number of students (headcount of declared jr & sr majors):

Year	I	II	III	IV	V
	0	0	4	8	10

Projected number of new faculty: Zero

Projected number of new support staff: Zero

Existing number of faculty who will participate in program: All (33)

All the faculty of the department are involved since the students in this program take the basic mathematics courses of calculus and linear algebra, fifteen credits that are required of all mathematics majors, and a particular selection of additional mathematics and statistics courses that are presently available to all mathematics majors.

Certification and Accreditation: All actuarial programs in the nation must be similar because every prospective actuary takes the same sequence of actuarial examinations that are administered jointly by the Society of Actuaries and the Casualty Actuarial Society. Detailed syllabi for these exams are published by the actuarial societies. The actuarial societies do not accredit or approve college or university actuarial science programs. Advanced exams, usually taken while employed, are

The course descriptions for all these courses can be found in any undergraduate bulletin of recent years. Copy of the department's entry from the Undergraduate Bulletin 1993-1994, listing the faculty and undergraduate course offerings, is attached. The computer science requirements, A-CSI 201 Introduction to Computer Science and A-CSI 203 Data Processing Principles, cover both Pascal and COBOL. B-ACC 211 Financial Accounting is also required. Although the majority of the credits are necessarily prescribed, a small amount of freedom is allowed by the choice of nine credits elected from business, computer science, or economics. No new courses are needed for the program.

Recommended schedule of mathematics courses:

The department strongly recommends that these majors elect Mat 204 and 469, which are one credit preparation courses for Exams 100 and 110 of the Society of Actuaries. Courses leading to an actuarial exam are denoted by * in a suggested schedule of course completion.

	Fall	Spring
Fresh	<u>112</u>	<u>113</u>
Soph	214	204*&301*
	<u>220</u>	<u>362</u>
Jr	363	465*
	<u>372</u>	<u>374*</u>
Sr	467	468
	<u>401*</u>	<u>469*</u>

(END OF COVER PAGE)

.....

Admission: The requirements for admission to the program are the same as that for the other majors offered by the department: Students may not declare a major in actuarial and mathematical sciences until they have completed at least one of MAT 113 or 214 with a grade of A, B, C or S. Transfer credit and grades may be used to satisfy the requirement.

Student demand: There is a felt need to call to the attention of the mathematics undergraduate the possibility of a major and a career in actuarial science. Too often we find students learning about the almost lost possibility of entering the field because they were not aware of the field early enough in their undergraduate education. In order to complete the proposed program within four years, the student should make a commitment as early as the beginning of the second semester of the sophomore year. Such students should be able to pass one or two of the actuarial exams at the end of the sophomore year. Students interested in actuarial science who start the program but do not finish should be able to change to a typical B.S. mathematics major and still enter the actuarial profession, although at a lower level. Of course, it should not be overlooked that offering the program will call attention to the University at Albany and very well might help in student recruitment.

Course of Study: All requirements are listed on the Cover Page, with course descriptions on the attached copy from the Undergraduate Bulletin. Multiple sections of the lower numbered courses are offered every semester, while the 400 level courses are usually offered only once a year. There are no new courses in the program, and every course is offered at least once every year

Vitae: Abbreviated vitae are attached for nine members of the faculty who have most recently taught the 300 and 400 level courses that are listed as requirements. All members of the departmental faculty will be a part of the program at some level; all members hold a Ph.D.

Library Resources: Since this is an undergraduate major in mathematics and statistics, the holdings of the library are more than adequate. The program requires no journal acquisitions.

Assessment: Due to the difficulty of the proposed program, which is only a reflection of the difficulty of the Society of Actuaries (SOA) examinations, the program will be deemed very successful if it produces two to four graduates a year. Of course the SOA examinations are themselves an assessment tool; the relative number of passes and failures is a measure of the success of the students and of the program itself. Hence, the program is automatically monitored by the SOA examinations.

The correspondence between SOA exams and our courses:

SOA Exam	100	110	120	130	135	140
SOA Credit	30	30	15	15	10	10
SUNYA	204	469	465	374	401	301

Fiscal factors: The University at Albany already offers the courses that constitute a prestigious major in the discipline of actuarial science. The proposed program requires only that the Department continue offering the courses in the program that it offers at the present time and with the same frequency. Therefore, no new resources are required from the department or from the university in the foreseeable future.

*

Department of Mathematics and Statistics

Faculty

Distinguished Teaching Professor

Edward S. Thomas Jr., Ph.D.,
University of California at Riverside

Professor Emerita/e

Ralph Beaver
Violet Lamey, Ph.D.,
University of Wisconsin
Carolyn Lester
Nura Turner

Professors

Louis Brickman, Ph.D.,
University of Pennsylvania
Lindsay N. Childs, Ph.D.,
Cornell University
Edward D. Davis, Ph.D.,
University of Chicago
Nathaniel A. Friedman, Ph.D.,
Brown University
Richard Z. Goldstein, Ph.D.,
University of Pennsylvania
Hugh Gordon, Ph.D.,
Columbia University
Benton N. Jamison, Ph.D.,
University of California at Berkeley
Joe W. Jenkins, Ph.D.,
University of Illinois
Melvin L. Katz, Ph.D.,
University of California at Berkeley
Boris Korenblum, Sc.D.,
Moscow State University
Timothy L. Lance, Ph.D.,
Princeton University
Thomas H. MacGregor, Ph.D.,
University of Pennsylvania
George E. Martin, Ph.D.,
University of Michigan
Hajimu Ogawa, Ph.D.,
University of California at Berkeley
Richard C. O'Neil, Ph.D.,
University of Chicago
R. Michael Range, Ph.D.,
University of California at Los Angeles
Howard H. Stratton, Ph.D.,
University of California at Riverside
Edward C. Turner, Ph.D.,
University of California at Los Angeles
Donald R. Wilken, Ph.D.,
Tulane University

Associate Professors Emerita/us

Elton Butler
Robert Luippold, M.A.,
University of Buffalo

Associate Professors

Guy D. Allaud, Ph.D.,
University of Wisconsin
Herbert I. Brown, Ph.D.,
Rutgers University
William F. Hammond, Ph.D.,
Johns Hopkins University
Lloyd L. Liningier, Ph.D.,
University of Iowa
Ricardo Nirenberg, Ph.D.,
New York University
Steven Plotnick, Ph.D.,
University of Michigan
Carlos Rodriguez, Ph.D.,
Columbia University
Malcolm J. Sherman, Ph.D.,
University of California at Berkeley
Mark Steinberger, Ph.D.,
University of Chicago
Kehe Zhu, Ph.D.,
State University of New York at Buffalo

Associate Professors Emeriti/ae

Erich Nussbaum, Ph.D.,
University of Virginia
John T. Therrien, M.A.,
University at Albany,
State University of New York

Assistant Professor Emerita/us

Henry Rosenbaum

Assistant Professors

Hara Charalambous, Ph.D.,
University of Illinois
So-Chin Chen, Ph.D.,
Princeton University
Anupam Srivatsav, Ph.D.,
University of Illinois
at Urbana-Champaign

Visiting Assistant Professor

Karin Reinhold-Larsson, Ph.D.,
Ohio State University

Adjuncts (estimated): 0

Teaching Assistants (estimated): 30

The department provides a broad offering of courses from which each student can make a selection designed to satisfy any of a large variety of objectives. In addition to including the standard courses in pure and applied mathematics, our course offerings are unusually strong in statistics and actuarial mathematics.

Students majoring in mathematics elect either the general program or the teacher education program. Under either program, a student may choose to complete the requirements for either the B.A. or B.S. degree. Under any of the four program-degree combinations, a student may apply for admission to the honors program.

Careers

The objective of the department is to serve the needs of students aspiring to careers that require mathematical background: physical, biological, social, and management sciences; statistics, actuarial work, computer science, applied mathematics; secondary school teaching; graduate work; college and university teaching; and research in mathematics. The department also welcomes students who wish to study mathematics as part of a traditional liberal arts education. In most cases, training beyond the bachelor's degree is desirable, but it can often be obtained after the graduate has secured employment.

Placement and Proficiency Credit

The University awards up to 8 credits and advanced placement in its sequences of calculus courses based on performance on the advanced placement calculus examinations administered by the College Board. Details concerning the decisions on credit and placement are available from the Admissions Office.

Admission

Students may not declare a major in mathematics until they have completed at least one of Mat 113, or 214 with a grade of A, B, C, or S. Transfer credits and grades may be used to satisfy the requirement.

Degree Requirements for the Major in Mathematics

B.A.: A minimum of 36 credits from the Department of Mathematics and Statistics in courses numbered above 109, including Mat 214, 220, and a 3-credit course numbered above 300 in each of these four areas: algebra, analysis, geometry/topology, and probability/statistics. In addition, students must demonstrate proficiency equivalent to one year of college-level foreign language (classical or modern) either by satisfactorily completing the first year, or taking a

language placement examination and placing beyond the first year, of that language.

B.S.: A minimum of 36 credits from the Department of Mathematics and Statistics in courses numbered above 109, including Mat 214, 220, and any two of the following four options: (1) Mat 326 and 327, (2) either (a) both Mat 314 and 315 or (b) any two of 312, 412, 413, or 414, (3) any two of Mat 342, 441, or 442, (4) May 467 and 468; with departmental approval, other 400-level or 500-level courses may be substituted for the courses listed above. In addition, each student must complete: 6 credits in computer science from Csi 101, 201, 202, 203, 204, 310; a minor in atmospheric science, biology, business, chemistry, computer science, economics, electronics, geology, physics.

NOTE: The Statistics minor is not open to students with a major in mathematics.

General Program

Students, with suitable advisement, can design programs which will best meet their particular interests and career goals. Note, however, that those who plan to do graduate work in any mathematical field—pure or applied—should obtain as strong an undergraduate background as possible in the basic areas of mathematics: algebra, analysis, and geometry/topology. In particular, they should make every effort to include Mat 413 and 414 (Advanced Calculus) in their programs.

To guide students in their planning, a number of options, some of a general nature and others to meet specific career objectives, are presented here.

1. Liberal Arts (B.A.)

Some professional careers and many jobs require a mathematical background characterized more by breadth than by concentration in any particular area of the mathematical sciences. The purpose of the B.A. program is to assure that the student acquires a broad view of mathematics and statistics. Each B.A. major is required to complete a 3-credit course numbered above 300 in each of these areas: algebra, analysis, geometry/topology, and probability/statistics. The following lists those courses which can be taken to fulfill that requirement:

Algebra: Mat 326, 326Z, 424

Analysis: Mat 311, 312, 312Z, 314, 409, 412, 412Z

Geometry/Topology: Mat 331, 331Z, 342, 342Z, 432, 432Z, 441, 442

Probability/Statistics: Mat 362, 362Z, 367, 465, 465Z

Students are urged to explore in greater depth, preferably at the 400-level. Since students will have different goals, it is impossible to provide useful sample programs. Students are encouraged to devise their own plans in consultation with their advisors. However, if a student is to graduate on time, the calculus sequence and linear algebra should be completed during the freshmen and sophomore years.

2. Graduate School Preparation

The department offers excellent opportunities for students who plan to go on to graduate work in mathematics and statistics as well as other areas such as computer science, the natural sciences, and the social and behavioral sciences.

Students whose goal is to obtain a graduate degree in mathematics should include in their programs as many of the following core courses as possible in each of the designated areas:

Algebra: Mat 326, 327, 424

Analysis: Mat 413, 414

Geometry/Topology: Mat 342

Those hoping to do graduate work should also consider entering the honors program.

Applied Mathematics

Although it is common to classify mathematics as either "pure" or "applied," the division is often arbitrary. Some extremely abstract mathematics in recent years has turned out to be useful in areas outside mathematics. Thus, those students who are preparing for a career in applied mathematics would be well-advised to acquire as strong a background as possible in the "pure" mathematical areas of analysis, algebra, and geometry/topology. On the other hand, students concentrating in pure mathematics should have some understanding of how to apply mathematical methods to other disciplines.

Listed here are the mathematical subjects that are more commonly applied to problems in other fields along with the corresponding courses in which methodology or applications are treated.

Applied algebra: Mat 326, 372

Applied analysis: Mat 311, 314, 315, 409, 412, 416

Numerical Methods: Mat 313, 401

Probability/Statistics: Mat 362, 363, 367, 464, 465

4. Statistics

Statistics is a widely applied branch of mathematics and the demand for statisticians is high. Preparation for a career or for advanced study in statistics should include one of the following two combinations of courses: (1) probability (Mat 367, 464) and statistics (Mat 362 or 362Z, 363 or 363Z, 465 or 465Z), or (2) probability (Mat 367, 464) and statistics (Mat 467, 468). Sequence (2) is recommended as the more advanced and thorough treatment. Mat 424 (advanced linear algebra) is highly recommended. Also useful are Mat 401, 409, 413 or 413Z, and 414. Because computing is a close adjunct to statistics, students are strongly advised to include Csi 201N, 204, and 310 as a minimal introduction.

5. Actuarial Science

Mathematics has useful and interesting applications in the field of actuarial science. The department offers a sequence of courses covering the material of Course Exams 100, 110, 120, 130, 135, and 140 of the Society of Actuaries. The recommended courses for the six examinations are as follows:

Course Exam 100: Mat 112, 113, 214, 220, 204.

Course Exam 110: Mat 467, 468, 469.

Course Exam 120: Mat 465.

Course Exam 135: Mat 401. A small amount of material on linear systems

can be obtained by self study.

Course Exam 140: Mat 301.

Teacher Education Program

Students interested in a career in secondary school teaching must apply for and be admitted to the Teacher Education Program administered by the Department of Teacher Education before they can be officially enrolled in this major in the teacher education program. Qualified students may apply after satisfactorily completing one year of undergraduate study and a minimum of 24 graduation credits. Admission requirements are described in this bulletin under the section headed "Department of Teacher Education." Students admitted to the program must complete the teacher education professional requirements described in this bulletin under "Undergraduate Professional Requirements" within the section headed "Department of Teacher Education." They must

also complete those courses within the major and related fields which are listed under "Degree Requirements for the Major in Mathematics."

1. Course requirements specifically for the mathematics teacher education program are: six credits in the same one of these sciences--atmospheric science, biology, chemistry, geology, physics; and in mathematics: Mat 326 or 326Z, 327 or 327Z, 331, 362 or 362Z, 432 or 432Z, and 452 or 452Z; in addition, either Mat 363 or 363Z or 367 (Mat 312 or 312Z is recommended for those wishing to teach calculus).

2. Typical schedule of mathematics courses:

Note particularly that at least two courses should be taken each semester beginning in the sophomore year.

Honors Program

The honors program is designed for the talented and committed student of mathematics. Successful completion of the program is excellent preparation for graduate work in mathematics.

A student entering the University in the fall who has advanced placement credit for "AB" calculus and who is aggressively interested in mathematics should inquire about taking the special honors section of Mat 113. If the entering student has less than AB calculus but has a strong mathematical record and is aggressively interested in mathematics, then that student should ask about the special honors section of Mat 112.

A student may be admitted formally to the honors program at any time after the sophomore year, and then will be formally advised by the Director of the Honors Program. However, any student who is interested in the program should see the Director of the Honors Program as early as possible for informal advisement.

To be admitted, the applicant must have an academic average in all University courses of at least 3.30, and an academic average in all mathematics courses of at least 3.40. Specific course requirements are: Mat 413 or 413Z, 414, 424, and nine additional credits from among Mat 327 or 327Z, 416, 420, 425, 432 or 432Z, 441, 442, 464, 467, 468, 510a, 513a, 520a, 520b, 540a, 557a, 557b, and independent study (maximum of 3 credits).

To be recommended for graduation with honors, the candidate must also write an acceptable honors thesis, pass a comprehensive examination, and maintain an academic average of at least 3.30 in all University courses and at least 3.40 in all mathematics courses numbered 400 or above.

Combined B.A./M.A. and B.S./M.A. Programs

The combined B.A./M.A. and B.S./M.A. programs in mathematics provide an opportunity for students of recognized academic ability and educational maturity to fulfill integrated requirements of undergraduate and master's degree programs from the beginning of their junior year. A carefully designed program can permit a student to earn the B.A. or B.S. and the M.A. degrees within nine semesters.

The combined programs require a minimum of 138 credits, of which at least 30 must be graduate credits. In qualifying for the B.A. or B.S., students must meet all University and college requirements, including the requirements of the undergraduate major described previously, the minimum 90- or 60-credit liberal arts and sciences requirement, general education requirements, and residence requirements. In qualifying for the M.A., students must meet all University and college requirements as outlined in the Graduate Bulletin, including completion of a minimum of 30 graduate credits and any other conditions such as a research

seminar, thesis, comprehensive examination, professional experience, and residence requirements. Up to 12 graduate credits may be applied simultaneously to both the B.A. and M.A. programs or to both the B.S. and M.A. programs.

Students are considered as undergraduates until completion of 120 graduation credits and satisfactory completion of all B.A. or B.S. requirements. Upon meeting B.A. or B.S. requirements; students are automatically considered as graduate students.

Students may apply to the graduate committee of the department for admission to either combined program in mathematics at the beginning of their junior year or after the successful completion of 56 credits, but no later than the accumulation of 100 credits. A cumulative grade point average of 3.2 or higher and three supportive letters of recommendation from faculty are required for consideration.

Combined Mathematics and Master of Business Administration Program:

In this program a student is able to obtain a B.S. degree in mathematics and a M.B.A. degree in a total of five years by taking a coordinated program in mathematics and business administration during the senior year. Application should be made during the second semester of the junior year to the director of the M.B.A. program, School of Business.

Related Program

Interdisciplinary Major in Computer Science and Applied Mathematics:

This major prepares a student to handle mathematically oriented computer applications in engineering and business. Details of the program are listed under Computer Science and Applied Mathematics.

COURSES

Mat 100 Precalculus Mathematics (3)

This course provides a background in those topics that are needed for success in calculus. Topics include graphing techniques, systems of equations, functions, logarithms, and trigonometry. **May not be taken for credit by students with credit in any calculus course. Only one of Mat 100 and Mat 103 may be taken for credit. Prerequisite:** three years of high school mathematics or permission of department.

Mat 103 College Algebra (3)

Exponents, logarithms, polynomial equations, solution of linear and quadratic equations in more than one unknown, determinants, permutations and combinations, mathematical induction, binomial theorem, probability, arithmetic and geometric progressions. **May not be taken for credit by students with credit in any mathematics course. Only one of Mat 100 and Mat 103 may be taken for credit. Prerequisite:** three years of high school mathematics or permission of department.

Mat 105 Finite Mathematics (3)

An introduction to topics of interest to students of the social sciences; sets and logic, partitions and counting, probability; vectors and matrices; theory of games. **Prerequisite:** three years of high school mathematics.

Mat 106 Survey of Calculus (3)

An intuitive approach to differentiation and integration of algebraic and transcendental functions, intended only for students who plan to take no more calculus. **Does not yield credit toward the major or minor in mathematics.** Prerequisite: Mat 100 or satisfactory performance on the mathematics placement exam.

Mat 108 Elementary Statistics (3)

Frequency distributions, measures of central tendency and dispersion, probability and sampling, estimation, testing of hypotheses, linear regression and correlation. Prerequisite: three years of high school mathematics. **Only one of Mat 108 and Msi 220 may be taken for credit.**

Mat 109 Applied Matrix Algebra (3)

Matrix algebra as applied to solving systems of linear equations, Markov chains, linear programming. Emphasizes calculations and applications rather than theory. Prerequisite: three years of high school mathematics.

Mat 112 Calculus I (4)

Calculus of one variable. Limits, continuity, differentiation of algebraic functions, applications of differentiation, antiderivatives, the definite integral, transcendental functions. Prerequisite: Mat 100 or satisfactory performance on the mathematics placement exam.

Mat 113 Calculus II (4)

Techniques of integration, applications of the definite integral, conics, polar coordinates, improper integrals, infinite series. Prerequisite: Mat 112.

Mat 160N Mathematics by Visualization (3)

A non-traditional course introducing contemporary mathematics, primarily by visualization rather than algebra. However, some algebra will be discussed. Topics include: Fractals; Chaos; Iterated Function Systems; Martin Gardner Examples; 4-dimensional Geometry; New Platonic Solids; 2, 3 & 4 Color Theorems; Extremum Problems; Minimal Surfaces and Soap Films; Escher, Tessellations, and Impossible Figures. Prerequisite: None.

Mat 180 Calculus Seminar (1)

Topics in mathematics which involve calculus and either elaborate concepts from calculus or apply calculus to problems in other areas or disciplines. The seminar is intended for freshmen who have just completed one semester of calculus and wish to enrich their understanding of calculus. Prerequisite: one semester of calculus and permission of instructor.

Mat 204 Actuarial Calculus and Linear Algebra (1)

Drill in problem solving in preparation for Course Exam 100 of the Society of Actuaries. Prerequisites: Mat 214 and 220. S/U graded. **Normally offered in the spring semester only.**

Mat 214 Calculus of Several Variables (4)

Curves and vectors in the plane, geometry of three-dimensional space, vector functions in

three-space, partial derivatives, multiple integrals, line and surface integrals. Prerequisite: Mat 113.

Mat 220 Linear Algebra (3)

Linear equations, matrices, determinants, finite dimensional vector spaces, linear transformations, Euclidean spaces. Prerequisite: Mat 113.

Mat 221 (same as Csi 221)**Introduction to Discrete Mathematics (3)**

Topics chosen from sets, relations, induction, binomial theorem, permutations and combinations, counting, and related topics in discrete mathematics. **Only one of Mat 221 & Csi 221 may be taken for credit.** Prerequisite or corequisite: Mat 113.

Mat 301 Theory of Interest (3)

The basic measures of interest, annuities, sinking funds, amortization schedules, bonds, and installment loans. Recommended as preparation for Course Exam 140 of the Society of Actuaries. Prerequisite: Mat 113.

Mat 308 Topics in Statistical Inference (3)

Various statistical techniques such as chi-square tests; multiple regression and correlation; nonparametric statistics, and the analysis of variance as applied to physical, biological, and social sciences. Prerequisite: Mat 108. **Normally offered in spring semester only.**

Mat 311 Ordinary Differential Equations (3)

Linear differential equations, systems of differential equations, series solutions, boundary value problems, existence theorems, applications to the sciences. Prerequisite: Mat 214.

Mat 312 & 312Z Basic Analysis (3)

Theoretical aspects of calculus including construction of the real numbers, differentiation and integration of functions in one variable, continuity, convergence, sequences and series of functions. **Mat 312Z is the writing intensive version of Mat 312; only one may be taken for credit.** Prerequisite: Mat 214.

Mat 313 Introduction to Numerical Methods (3)

Introduction to the theory and techniques in the numerical solution of mathematical problems. Topics include solutions of linear and nonlinear equations, interpolation, numerical integration, and numerical solution of differential equations. **Not more than one of Mat 313 or Mat 401 may be taken for credit.** Prerequisite: Mat 220.

Mat 314 Applied Analysis I (3)

Introduction to topics in mathematical analysis which traditionally have been applied to the physical sciences, including vector analysis, Fourier series, ordinary differential equations, and the calculus of variations. Prerequisites: Mat 214 and 220.

Mat 315 Applied Analysis II (3)

Continuation of Mat 314: Series solutions of differential equations, partial differential

equations, complex variables, and integral transforms. Prerequisite: Mat 314.

Mat 326 & 326Z Classical Algebra (3)

Elementary number theory. Elementary theory of equations over rational, real, and complex fields. **Mat 326Z is the writing-intensive version of Mat 326; only one may be taken for credit.** Prerequisite: Mat 113.

Mat 327 & 327Z Elementary Abstract Algebra (3)

Basic concepts of groups, rings, integral domains, fields. **Mat 327Z is the writing intensive version of Mat 327; only one may be taken for credit.** Prerequisites: Mat 220, and 326 or 326Z.

Mat 331 and 331Z Transformation Geometry (3)

Classical theorems of Menelaus, Ceva, Desargues, and Pappus. Isometries, similarities, and affine transformations for Euclidean geometry. **Mat 331Z is the writing intensive version of Mat 331; only one may be taken for credit.** Prerequisite: Mat 220. **Normally offered in spring semester only.**

Mat 342 & 342Z Elementary Topology (3)

Networks, map coloring problems, surfaces, topological equivalence, the Euler number, the polygonal Jordan curve theorem, homotopy, the index of a transformation, and the Brouwer Fixed Point Theorem. **Mat 342Z is the writing intensive version of Mat 342; only one may be taken for credit.** Prerequisites: Mat 214 and 220.

Mat 362 & 362Z Introduction to Statistics I (3)

Introduction by application to the theory and methods of statistics. Central limit theorems, maximum likelihood, properties of estimators, confidence intervals, and tests of hypotheses. **Mat 362Z is the writing intensive version of Mat 362; only one may be taken for credit.** Prerequisite: Mat 113.

Mat 363 & 363Z Introduction to Statistics II (3)

Continuation of Mat 362 or 362Z. Analysis of variance, multiple regression, contingency table analysis, introduction to nonparametric methods. **Mat 363Z is the writing intensive version of Mat 363; only one may be taken for credit.** Prerequisite: Mat 362 or 362Z.

Mat 367 Discrete Probability (3)

Introduction to combinatorial mathematics and discrete probability models. Prerequisite: Mat 113 plus 6 credits at the 200 level or above in either mathematics or computer science.

Mat 372 & 372Z Linear Programming and Game Theory (3)

Operation and theory of the simplex algorithm for solving linear programming problems, duality theory, and matrix games. **Mat 372Z is the writing intensive version of Mat 372; only one may be taken for credit.** Prerequisite: Mat 109 or 220.

Mat 374 Operations Research (3)

Operations research techniques and applications, linear programming, queuing theory, modeling birth and death processes, decision theory, network analysis, simulation. Recommended as preparation for Course Exam 130 of the Society of Actuaries. Prerequisite: Mat 362 or 362Z or 367 or permission of instructor.

Mat 401 Numerical Analysis (3)

Error analysis, numerical solution of nonlinear equations, interpolation and polynomial approximation, numerical differentiation and integration, direct methods for solving linear systems. Recommended as preparation for Course Exam 135 of the Society of Actuaries. Not more than one of Mat 313 or Mat 401 may be taken for credit. Prerequisite: Mat 220. Normally offered fall semester only.

Mat 409 Vector Analysis (3)

Classical vector analysis presented heuristically and in physical terms. Topics include the integral theorems of Gauss, Green, and Stokes. Prerequisite: Mat 214. Normally offered in spring semester only.

Mat 412 & 412Z Complex Variables for Applications (3)

The elementary functions, differentiation, conformal transformations, power series, integral theorems, Taylor's theorems, Taylor's and Laurent's expansions, applications of residues. Mat 412Z is the writing intensive version of Mat 412; only one may be taken for credit. Prerequisite: Mat 214. Normally offered in fall semester only.

Mat 413 & 413Z, and 414 Advanced Calculus (3, 3)

A rigorous presentation of the traditional topics in the calculus of several variables and their applications. Topics include the implicit function theorem, Taylor's theorem, Lagrange multipliers, Stieltjes integral, Stokes' theorem, infinite series, Fourier series, special functions, Laplace transforms. Mat 413Z is the writing-intensive version of Mat 413; only one may be taken for credit. Prerequisites: Mat 312 or 312Z; Mat 413 or 413Z is a prerequisite for 414.

Mat 416 Partial Differential Equations (3)

The partial differential equations of classical mathematical physics. Separation of variables, eigenvalue problems, Fourier series and other orthogonal expansions. First order equations, Green's functions, Sturm-Liouville theory, and other topics as time permits. Prerequisite: a course in Ordinary Differential Equations.

Mat 420 Abstract Algebra (3)

Topics in group theory, especially finite group theory, algebraic field extensions, and Galois theory. Prerequisite: Mat 327 or 327Z.

Mat 424 Advanced Linear Algebra (3)

Duality, quadratic forms, inner product spaces, and similarity theory of linear transformations. Prerequisite: Mat 220. Normally offered in fall semester only.

Mat 425 Number Theory (3)

Divisibility, congruences, quadratic reciprocity, Diophantine equations, sums of squares, cubes, continued fractions, algebraic integers. Prerequisite: Mat 326 or 326Z. Normally offered in spring semester only.

Mat 432 & 432Z (formerly 332) Foundations of Geometry (3)

Axiomatic development of absolute geometry, theory of parallels, introduction to non-Euclidean geometry, isometries of the Bolyai-Lobachevsky plane. Mat 432Z is the writing intensive version of Mat 432; only one may be taken for credit. Prerequisite: Mat 220. Normally offered in fall semester only.

Mat 441 Introduction to Differential Geometry (3)

Differential geometry of curves and surfaces in Euclidean space, frames, isometries, geodesics, curvature, and the Gauss-Bonnet theorem. Prerequisites: Mat 214 and 220.

Mat 442 Introduction to Algebraic Topology (3)

Two dimensional manifolds, the fundamental group and Van Kampen's theorem, covering spaces, graphs, and applications to group theory. Prerequisites: Mat 214 and 220.

Mat 452 & 452Z History of Mathematics (3)

History of the development of mathematics, emphasizing the contributions of outstanding persons and civilizations. Mat 452Z is the writing intensive version of Mat 452; only one may be taken for credit. Prerequisites: Mat 214, 326 or 326Z, and either 331 or 432 or 432Z. Normally offered in fall semester only.

Mat 464 Applied Stochastic Processes (3)

An overview of various stochastic processes found in practice with particular emphasis on Markov chains. Introduction to queuing theory. Particular attention given to estimation. Examples of applications. Prerequisite: Mat 367 or 467. Normally offered in spring semester only.

Mat 465 & 465Z Applied Statistics (3)

A second course in statistics. Statistical methodology and data analysis, focusing on regression, analysis of variance, and nonparametric statistics. Recommended as preparation for Course Exam 120 of the Society of Actuaries. Mat 465Z is a writing intensive version of Mat 465; only one may be taken for credit. Prerequisites: Mat 113 and 363 or their equivalents.

Mat 467 & 468 Introduction to Theory of Statistics I & II (3, 3)

A mathematical treatment of principles of statistical inference making use of calculus in one and several variables and of limits of infinite series and sequences. Probability, random variables, families of distributions, expectation, central limit theorem. Estimation including maximum likelihood, sufficient statistics, confidence intervals, hypothesis testing and Neyman-Pearson theory. These courses are appropriate preparation for Course Exam 110 of

the Society of Actuaries. Prerequisites: Mat 214, 220, and either (i) Mat 367 and a prior course in statistics or (ii) Mat 362 and Mat 363. Mat 467 is a prerequisite for Mat 468.

Mat 469 Actuarial Probability and Statistics (1)

Drill in problem solving in preparation for Course Exam 110 of the Society of Actuaries. Prerequisite: Mat 468 or taken concurrently with Mat 468. S/U graded. Normally offered in spring semester only.

Mat 481a and b Senior Seminar (3, 3)

Study of topics in mathematics, chosen at the discretion of the instructor. Prerequisite: permission of instructor.

Mat 497 Independent Study in Mathematics (1-3)

Individual, independent study of selected topics not covered in a regularly scheduled course. Open only to majors in mathematics. May be repeated for credit. Prerequisites: junior or senior class standing, and permission of instructor with whom student wishes to study.

Medieval and Renaissance Studies Program**Director**

Louis Roberts, Ph.D.,
Department of Classics

The purpose of the Medieval and Renaissance Studies program is to give students a broad, multi-disciplinary training in the history and culture of Europe from late antiquity to the early modern period. Both as a major and a minor, the program offers a wide range of courses and a guide for anyone with a special interest in the Middle Ages and the Renaissance. It is especially recommended as a second major for anyone considering going on to graduate study in some aspect of medieval and Renaissance studies.

Admission: Students must obtain the approval of the Program Director before officially declaring this faculty-initiated interdisciplinary program as a major.

Degree Requirements for the Interdisciplinary Major with a Concentration in Medieval and Renaissance Studies**General Program**

B.A.: A minimum of 36 credits: 9 credits of the core history courses, 6 credits in literature and philosophy, 6 credits in art and music, and 15 elective credits chosen from courses approved for the program. If a student applies the credits from one or more of the approved courses of the program to the requirements of a minor (e.g., the 6 credits in literature,) he/she is absolved from fulfilling that particular requirement in the program and may substitute an equal number of credits from any of the elective courses to reach the required minimum of 36 credits.

Majors are required to demonstrate at least an elementary reading ability in Latin either by satisfactory completion of the first year course in

GUY D. ALLAUD

EDUCATION:

1956, B.A., University of Houston, Texas
1961, Ph.D., University of Wisconsin

ACADEMIC EXPERIENCE:

1961, Instructor, University of Wisconsin
1962-63, Research Instructor, University of Chicago
1963-68, Assistant Professor, Western Reserve University
1968- , Associate Professor, State University of New York at Albany

AWARDS:

1964, Principal Investigator, NSF Grant GP 2615
1965, Principal Investigator, NSF Grant GP 6138
1966, Principal Investigator, NSF Grant GP 8896
1968, Principal Investigator, NSF Grant GU 3171
1970, Recipient, State University of New York Faculty Fellowship

SELECTED RECENT PAPERS:

Concerning Universal Fibrations and a Theorem of E. Fadell, Duke Math. Journal, 1970, 37, 2, pp. 213-224.
Remarks on the Loop of a Fibration, Duke Math. Journal, 1971, 38, 2, pp. 357-363.
De-looping Homotopy Equivalences, Archiv. der Mathematik, 1972, 23, 2, pp. 167-169.
Almost periodic minimal sets (with E.S. Thomas), J. Diff. Equations, 1973, 15, 1, pp. 158-171.

LOUIS BRICKMAN

EDUCATION

1956, A.B., Temple University
1957, A.M., University of Pennsylvania
1959, Ph.D., University of Pennsylvania

ACADEMIC EXPERIENCE

1959-61, Instructor, Yale University
1961-63, Assistant Professor, Cornell University
1963-64, Assistant Professor, Cornell University and University of Pennsylvania
1964-67, Associate Professor, University of Indiana
1967- , Professor, State University of New York at Albany

AWARDS

1968-69, Faculty Associate, National Science Foundation, Grant GP 8199
1969-70, Faculty Associate, National Science Foundation, Grant GP 12017
1970-71, Faculty Associate National Science Foundation, Grant GP 19709
1972, Recipient, SUNY Faculty Fellowship
1973-74 Co-Principal Investigator, National Science Foundation, Grant GP 39254
1974-76, Associate Editor, Proceedings of the American Mathematical Society

SELECTED RECENT PAPERS

Functionals of Rational Type over the Class S , Proc. Amer. Math. Soc., Volume 92, Number 3, 1984, 372-376.

Measures and Extremal Problems (with D.R. Wilken), Journal of the Indian Math. Soc., 49(1985), 127-149.

Mathematical Introduction to Linear Programming and Game Theory, Springer-Verlag, 1989.

The Symmetry Principle for Mobius Transformations, Amer. Math. Monthly, Vol. 100, No.8, 1993, 781-782.

RICHARD Z. GOLDSTEIN

EDUCATION

1960, B.A., Temple University, Pennsylvania
1962, M.A., University of Pennsylvania
1966, Ph.D., University of Pennsylvania

ACADEMIC EXPERIENCE

1965-66, Instructor, Temple University
1966-68, Hildebrandt Instructor, University of Michigan
1968-70, Assistant Professor, University of Wisconsin
1970, Associate Professor, State University of New York at Albany
1974-75, Visiting Professor, University of Wurzburg, Germany
1985, Full Professor, State University of New York at Albany

AWARDS

1961-63, Postdoctoral Fellowship, National Science Foundation
1967-70, Recipient, National Science Foundation Grants GP6462, GP13285, GP20848
1971, Recipient, State University of New York Faculty Fellowship
1972, Recipient, State University of New York Faculty Fellowship
1974, Recipient, State University of New York Faculty Fellowship
1974-75, Alexander Von-Humboldt Fellowship
1980-81, Recipient, State University of New York Faculty Fellowship

SELECTED RECENT PAPERS

Automorphisms of Free Groups and their fixed points (with E.C. Turner), *Invent. Math.*, 1984, vol. 78, (1-12).

Monomorphisms of free groups have finitely generated equalizers (with E.C. Turner), *Invent. Math.*, 82 (1985), 283-289.

Counting orbits of a product of permutations (with E.C. Turner), *Discrete Math.*, to appear.

Fixed subgroups of homomorphisms of free groups (with E.C. Turner), *Bull. London Math. Soc.*, 18 (1986), 468-470.

Conjugacy in Semigroups (with J. Teymouri), in preparation.

BENTON N. JAMISON

EDUCATION

1951, B.S., Stanford University
1956, M.S., Stanford University
1960, Ph.D., University of California at Berkeley

ACADEMIC EXPERIENCE

1960-62, Instructor, University of Minnesota
1962-64, Assistant Professor, University of Minnesota
1964-65, Visiting Assistant Professor, California Institute of Technology
1965-68, Visiting Associate Professor, University of Minnesota
1968-69, Visiting Associate Professor, University of California at San Diego
1968-70, Associate Professor, University of Minnesota
1970- , Professor, State University of New York at Albany
1972-73, Lecturer, James E. Allen Collegiate Center, State University of New York at Albany

AWARDS

1961-67, Recipient, Air Force Office of Scientific Research Grants
1968-69, Recipient, National Science Foundation Research Grant
1971, Recipient, State University of New York Faculty Fellowship
1972, Recipient, State University of New York Faculty Fellowship
1972-74, Recipient, National Science Foundation Grant PO34627
1974, Recipient, National Science Foundation Faculty Fellowship
1976-77, Recipient, National Science Foundation Research Grant
1980-81, Recipient, National Science Foundation Research Grant
1981-82, Recipient, National Science Foundation Research Grant

SELECTED RECENT PAPERS

Unique Ergodicity for certain Random Translations (with Robert Sine), Proc. Amer. Math. Soc., 1979, 75, pp. 75-74.

Processes with State-Dependent Hitting Probabilities and their Equivalence under Time Changes (with R.V. Chacon), Advances in Mathematics, 1979, 32, pp. 1-35.

Traversal Times of Markov Processes (with R.V. Chacon), Bull. Amer. Math. Soc. (new series), 1979, 1, pp. 583-584.

A Fundamental Property of Markov Processes with an Application to Equivalence under Time Changes (with R.V. Chacon), Israel J. Math., 1979, 3-4, pp. 241-269.

Sample Path Consistency for Markov Processes (with R.V. Chacon), Z. Wahr., 1981, Geb. 58, pp. 169-182.

JOE W. JENKINS

EDUCATION

1963, B.S., Kansas State College
1965, M.S., University of Illinois
1968, Ph.D., University of Illinois

ACADEMIC EXPERIENCE

1968-69, Instructor, State University of New York at Albany
1969-72, Assistant Professor, State University of New York at Albany
1971-72, Member, Institute for Advanced Study
1972-78, Associate Professor, State University of New York at Albany
1978-79, Visiting Associate Professor, Universitat Wurzburg
1979-81, Associate Professor, State University of New York at Albany
1981-84, Professor, State University of New York at Albany
1984- , Chairman, Department of Mathematics and Statistics, State University of New York at Albany

AWARDS

1963-68, Teaching-Research Assistant, University of Illinois
1969-71, Principal Investigator, NSF Grant GP12027
1970, Recipient, State University of New York Faculty Fellowship
1971-73, Principal Investigator, NSF Grant GP28925
1972, Recipient, State University of New York Faculty Fellowship
1973-76, Principal Investigator, NSF Grant PO38489 (73-75), MPS7308703A02
1977-79, Principal Investigator, NSF Grant MCS77-02045
1979-81, Principal Investigator, NSF Grant MSC77-02045
1981-83, Principal Investigator, NSF, Grant MCS810078
1983-85, Principla Investigator, NSF, Grant MCS8301285
1984, President's Award for Excellence in Teaching
1985, Principal Investigator, NSF Grant DMS8501518

SELECTED RECENT PAPERS

Minimal Eigenvalues for positive Rockland operators (with A. Hulanicki, J. Ludwig), Proc. Amer. Math. Soc. 1985, 94, 4, pp. 718-720.

Nilpotent Lie groups and eigenfunction expansions of Schrödinger operators II (with A. Hulanicki), Studia Math. 1987, LXXXVII, pp. 239-252.

Bi-invariant Schwartz multipliers and local solvability on nilpotent Lie groups, Bull. Amer. Math. Soc. 1988, 19, 1, pp. 291-294

MELVIN KATZ

EDUCATION

1952, B.S., California Institute of Technology
1959, Ph.D., University of California, Berkeley

ACADEMIC EXPERIENCE

1959-64, Assistant Professor, University of Chicago
1962-63, Member, Institute for Defense Analysis, Princeton, New Jersey
1964-67, Associate Professor, University of New Mexico
1967- , Professor, State University of New York at Albany
1972-73, Lecturer, James E. Allen Collegiate Center, State University of New York at Albany

AWARDS

1964-67, Research Associate, National Science Foundation Grants
1968-70, Recipient, National Science Foundation Grant GP8194
1970-71, Recipient, National Science Foundation Grant PO19225
1971, Recipient, State University of New York Faculty Fellowship

SELECTED RECENT PAPERS

A Note on the Weak Law of Large Numbers, *Ann. Math. Stat.*, 1968, 39, 4, 1348-1349.

A Note on the Strong Law of Large Numbers (with K.G. Binmore), *Bull. Amer. Math. Soc.*, 1968, 74, 5, 941-943.

Strong Laws for Ruled Sums (with L. Baum and H. Stratton), *Annals Math. Stats.*, 1971, 42, 625-629.

A Limit Theorem for Sums of Random Variables Indexed by Multidimensional Indices (with Howard Stratton), *Z. Wahrscheinlichkeitstheories verw. Gebiete* 58, 389-396 (1981).

RICHARD C. O'NEIL

EDUCATION

1952, B.A., Oberlin College
1955, M.S., University of Chicago
1960, Ph.D., University of Chicago

ACADEMIC EXPERIENCE

1959-61, Instructor, DePaul University
1961-65, Assistant Professor, Rice University
1965-66, Maitre de Conferences, Fac. des Sciences, Montpellier, France
1966-67, Assistant Professor, Rice University
1967-68, Associate Professor, Rice University
1968, Professor, State University of New York at Albany

AWARDS

1955-59, Graduate Teaching Assistant, University of Chicago
1963-68, Recipient, AFOSR grant
1969-70, Recipient, National Science Foundation Grant, GP12017
1970-71, Recipient, National Science Foundation Grant, GP19185

SELECTED RECENT PAPERS

Les fonctions conjugees et les integrales fractionnaires de la classe $L(\log^+ L)^s$. C.R. Acad. Sc., Paris, 1966, T. 263, pp. 463-466.

Integral transforms and tensor products on Orlicz spaces and $L(p, q)$ spaces, Journal D'Analyse Mathematique, 1968, XXI, pp. 1-276.

Adjoint operators and interpolation of linear operators, Proc. Conf. on Abstract Spaces and Approx. Oberwolfach, Germany, 1968 ISMN, 1969, 10 pp. 99-106.

Convolution with Odd Kernels, Studia Mathematica, 1972, T. XLIC, pp. 517-526.

CARLOS C. RODRIGUEZ

EDUCATION

1980, B.S., University of Chile
1982, M.S., SUNY at Stony Brook
1984, Ph.D., SUNY at Stony Brook

ACADEMIC EXPERIENCE

1982-84, Instructor, Department of Applied Mathematics and Statistics, SUNY at Stony Brook
1985, Consultant of Maximum Entropy Methods, Department of Applied Mathematics, Brookhaven National Laboratory
1984- , Assistant Professor, Department of Mathematics SUNY at Albany

AWARDS

1985, Research Foundation of the State University of New York, Support and Development Award
1986, Research Foundation of the State University of New York, Support and Development Award
1988, Research Foundation of the State University of New York, Support and Development Award
1986-1991, NIH Grant (1-R01-CA41171-01 A1, Awarded by the National Cancer Institute, DHHS.

SELECTED RECENT PAPERS

On the estimation of the bandwidth parameter using a noninformative prior, Proc. of the 45th Session of the Intl. Stat. Inst., Amsterdam, Book 1, 207-208.

Multivariate k -nearest neighbor density estimates as generalizations of the one dimensional maximum entropy histograms. Tech. Rep. No. 11, Dept. of Math. and Stat., SUNY at Albany.

Papers on Probability Statistics and Physics (with E.T. Jaynes), R.D. Rosenkrantz (ed.), Book review, in JASA 80, 771-772.

Weak Convergence of Multivariate k -nn. Tech. Report. Dept. of Math. and Stat., SUNY at Albany.

MALCOLM J. SHERMAN

EDUCATION

1960, B.S., University of Chicago
1960, M.S., University of Chicago
1964, Ph.D., University of California, Berkeley

ACADEMIC EXPERIENCE

1964 , Instructor, University of California, Berkeley
1964-65, Acting Assistant Professor, University of California, Los Angeles
1965-68, Assistant Professor, University of California, Los Angeles
1968-70, Assistant Professor, State University of New York at Albany
1970- , Associate Professor, State University of New York at Albany
1988 , Associate Professor, Department of Biometry and Statistics (joint appointment with Mathematics Department), State University of New York at Albany

AWARDS

1969-71, Recipient, National Science Foundation Grant GP12020
1971 , Recipient, State University of New York Faculty Fellowship

SELECTED RECENT PAPERS

On the Moduli of Analytic Functions, Canadian Math. Bulletin, 1970, 13, 3, 325-327.
Invariant Subspaces Containing All Constant Directions, J. Functional Analysis, 1971, 8, 1, 882-885.
Disjoint Maximal Invariant Subspaces, Pacific J. Math., 1972, 40, 2, 373-374.
Non-cyclic vectors for S^* (jointly with D.A. Herrero), Proceedings Amer. Math. Society, 1975, 48, 1, 193-196.

Resolution Regarding Commencement for 1995

Whereas, the University at Albany's Commencement ceremony has involved a single ceremony attended by all degree recipients, bachelor's, master's and doctoral, and featuring the presentation of honorary degrees and other distinguished awards; and

Whereas, the many diverse activities that occur as part of a single ceremony can create different expectations among the various participants; and

Whereas, a format for Commencement has been proposed by the President that would involve two separate ceremonies, one for baccalaureate candidates and one for master's, doctoral and certificate of advanced study candidates; and

Whereas, the Council on Educational Policy has discussed and unanimously endorsed the proposal to hold the separate undergraduate and graduate ceremonies; and

Whereas, the Council of the Class of 1995 has discussed and endorsed the proposal to hold separate undergraduate and graduate ceremonies; now therefore be it

Resolved that the University Senate endorses the proposal for separate undergraduate and graduate Commencement ceremonies in 1995 as outlined in the attached proposal.

COMMENCEMENT 1995 PROPOSAL

Sunday, May 21, 1995

10 a.m.

Undergraduate Commencement Ceremony

Knickerbocker Arena

Program: (1-1/2 hours)

Processional (25 minutes)

Invocation (3 minutes)

President's Welcome (8 minutes)

Faculty Welcome (5 minutes)

Student Welcome (5 minutes)

Presentation of Collins Fellow Awards*

Commencement Address (12 minutes)

Musical interlude (5 minutes)

Conferral of Degrees by major groups (10 minutes)

Alma Mater (3 minutes)

Recessional

12:30-1:30 p.m.

Undergraduate School and College Reception

(Hosted by the Deans)

2:30 p.m.

Graduate Commencement

Recreation and Convocation Center

Program: (1-1/2 hours)

Processional (12 minutes)

Invocation (3 minutes)

President's Welcome (8 minutes)

Faculty Welcome (5 minutes)

Student Welcome (5 minutes)

Presentation of Collins Fellow Awards*

Presentation of Honorary Degree (3 minutes)

Commencement Address (12 minutes)

Individual Hooding and Presentation of Doctoral
Candidates (15 minutes)

Individual Presentation of Master's Candidates (20
minutes)

Alma Mater (3 minutes)

Recessional

*Depending upon the award recipients, the Collins Fellow Awards may be presented at either ceremony.

UNIVERSITY SENATE
UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK

Introduced by: Senators Joan Schulz, Judith Baskin and Bonnie Spanier

Date: December 12, 1994

IT IS HEREBY PROPOSED:

- I. That the University Senate approve the attached Resolution.
- II. That this Resolution be distributed to the University at Albany community via campus news media, mail, and electronic systems.

WHEREAS, racism remains a destructive problem endemic to American Society; and

WHEREAS, the victim of the recent campus incident involving the violent abuse of unequal power relations drew upon that societal racism to obscure the actual events that occurred; and

WHEREAS, the University at Albany is committed to the principles of a just society and an education free of racism, sexism, heterosexism, and other forms of constraint of the human condition; and

WHEREAS, the University at Albany is a microcosm of society, in no way perfect, but attempting to utilize means appropriate to our mission as an institution of higher learning to work toward eliminating racial, ethnic and sexual injustice; and

WHEREAS, such institutional efforts as the Just Community, Campus Together Day, and General Education requirements that include a specific Human Diversity component demonstrate a commitment to reflect and respect the multicultural heritage of people in the United States.

WE, the University Senate of the University at Albany:

- Commend the entire student body for its restraint in constructively addressing the recent problem and for taking appropriate measures not only concerning the particular incident but concerning the larger issue of societal racism; and
- Commend President H. Patrick Swygert for his restraint and wisdom in this matter; and his concern for the people directly involved in this tragedy; and
- Acknowledge and commend the African-American community of Albany, the Student Association, ASUBA, the President's Task Force on Women's Safety, and the Division of Student Affairs, including the Office of Residential Life and University Public Safety Department, for their significant roles in maintaining a reasoned response to a potentially incendiary situation and for publicly addressing the problem in the context of racial and sexual injustice; and
- Support the redoubling of efforts to offer curricula and extra-curricular activities that constructively address issues of power inequities based on the major societal categories of race, ethnicity and gender; and
- Endorse the safety measures that were taken, even in this tight financial moment, and support the position that such safety measures should continue.