

The University of Akron

IdeaExchange@UAkron

The University of Akron Faculty Senate Chronicle

4-2-1974

Faculty Senate Chronicle April 2, 1974

Heather M. Loughney

Follow this and additional works at: <https://ideaexchange.uakron.edu/universityofakronfacultysenate>

Please take a moment to share how this work helps you [through this survey](#). Your feedback will be important as we plan further development of our repository.

This Article is brought to you for free and open access by IdeaExchange@UAkron, the institutional repository of The University of Akron in Akron, Ohio, USA. It has been accepted for inclusion in The University of Akron Faculty Senate Chronicle by an authorized administrator of IdeaExchange@UAkron. For more information, please contact mjon@uakron.edu, uapress@uakron.edu.



1973-74, No. 7 (26 pages)

April 2, 1974

IN MEMORIAM

The University has suffered two more deep bereavements within a week, losing two esteemed and beloved members of the faculty.

Mr. Richard C. Marshall, Professor of Law, passed away unexpectedly on Friday, March 22, 1974, shortly after heart surgery. Joining our faculty in 1959 from the Akron Law School when it became the College of Law, he had been a conscientious, loyal member of the University family.

Mr. William M. Petry, Dean of the Community and Technical College, suffered heart failure on Friday, March 29, 1974, following a short illness and hospitalization. He had given devoted and dedicated service on the campus, having joined the faculty in 1946, in Mechanical Engineering, and which he later headed prior to his assignment as Acting Dean of the College of Engineering. He was appointed the first Dean of the Community and Technical College in 1964.

The entire University mourns their passing.

UNIVERSITY COUNCIL

Meetings

Special Meeting, Thursday, April 11, 1974.

Regular Meeting, Thursday, April 18, 1974.

[Both to be held in Business Administration 307, at 3 p. m.]

Membership Changes (March 1974)

Dr. Caesar Carrino succeeds Mr. John Hedrick, as Dean of the Evening College and Summer Sessions.

Mr. James Macak succeeds Mr. Eddy Corneille, as representative from Associated Student Government.

TABLE OF CONTENTS

Announcements	Page 1
Minutes of Regular Meeting of University Council, March 28, 1974	Page 2
Curriculum Changes (adopted March 28, 1974)	Page 9
Faculty Research Grants (February and March 1974)	Page 26

MINUTES OF REGULAR MEETING OF UNIVERSITY COUNCIL, March 28, 1974

The regular meeting of the University Council was called to order by the Chairman, Vice President Noel Leathers, at 3:07 p. m. on Thursday, March 28, 1974, in Business Administration 307.

Fifty-one of the 64 members of Council were present. Those absent with notice were Dr. L. Anderson, Mr. M. Briner, Mr. d'Amico, Dr. R. Ferguson, Dean R. Hansford, Dean C. Major, Dean W. Petry, Dean W. Rogers and Mr. H. P. Schrank, Jr. Others absent were Mr. F. Rogacs, Dean T. Sumner, Mr. J. Thatcher and Miss S. Traub.

The Chairman welcomed two new members of Council who were attending their first meeting: Mr. Jim Macak, a student representative succeeding Mr. E. Corneille who is not on campus this spring quarter; and Dr. Caesar Carrino who succeeded Mr. John Hedrick as Dean of the Evening College and Summer Sessions on March 1.

Inasmuch as the special meeting of University Council on February 28, 1974 could not officially report as a Committee of the Whole due to lack of a quorum, Dr. Leathers called upon Dr. Gerlach to report. Dr. Gerlach stated that the Committee of the Whole had considered various amendments beginning with the original Section 23 of Article D (Academic Matters and General Policies) of the Faculty Manual, at the bottom of page 23 of the Ad Hoc Committee Report, and continuing through original Section 39 on page 30 of the Ad Hoc Committee Report. He noted that the cover page of the document summarizing these amendments referred to them as "passed by University Council", but he reminded the members that the changes finally had to be officially approved in toto by the Council. He moved that his report of the meeting of February 28, 1974 be accepted. The motion was seconded and carried.

The Chairman called for consideration of the minutes of the three meetings of Council held in February, as printed in the AU Chronicle of March 4, 1974: special meeting of February 7, regular meeting of February 21, and special meeting of February 28. On motion the minutes were approved as printed.

Dr. Leathers called upon Dr. D. J. Guzzetta for the next agenda item, "Remarks of the President." Dr. Guzzetta read the letter he had sent to the Chairman of Council on March 6 relative to action by the University Board of Trustees on two matters referred from the Council. The letter follows:

"At the February 27, 1974 meeting of the Board of Trustees, University Council proposals to amend Article II—Power and Duties, and Article VII—Executive Committee, of the University Council Bylaws were approved.

"Article II, Power and Duties, now reads as follows:

"The University Council of the University Faculty is the legislative body thereof, and the Board empowers it to formulate suitable rules, requirements and procedures for the admission, government, management and control of the students, courses of study, granting of degrees and certificates, and other internal affairs of the institution necessary to meet the objectives of the University in accordance with the established policies of the Board.

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

'Legislative action of the University Council will be forwarded to the Board of Trustees through the President of the University and will be considered as approved by the Board of Trustees unless the Board returns said legislation to the Council with recommendations for revision within 90 calendar days of the date of transmittal to the Board.'

"Article VII referring to the Executive Committee is deleted and Articles VIII and IX will be renumbered Articles VII and VIII.

"With reference to Article II, it is understood that should the Board of Trustees require additional time beyond 90 days to consider legislative action passed by University Council, it will so advise the Council. Although it is not anticipated that this would occur often, it might be necessary in complex cases where the Council has studied and deliberated on an issue for months. In such instances, the Board may also require a little more study time.

"At this same meeting, the Board also endorsed University Council's resolution on the early semester and directed that it be submitted to the Board of Regents. The resolution appears below:

'BE IT RESOLVED, That the University Council of The University of Akron support the adoption of the early semester calendar system, effective September 1975; and

'BE IT FURTHER RESOLVED, That this University Council action be forwarded by the President of the University to the Board of Trustees for its approval and then transmitted to the Chancellor of the Ohio Board of Regents.' "

At the same meeting, he continued, the Board had endorsed the idea of early semester calendar and he had accordingly informed the Chancellor. Dr. Guzzetta added that the implementation of this calendar apparently is not so imminent as it seemed at first, inasmuch as Kent State and Youngstown State Universities are still trying to determine faculty opinion. Cleveland State, Cincinnati and Ohio State Universities are firm advocates of the quarter system.

Dr. Guzzetta referred to his letter sent to the faculty following yesterday's meeting of the Board of Trustees. He wished to put some rumors to rest and he stated that the University did not intend to tear down Hower House, that University funds would not be used for its restoration and that it would be probably used for offices and public services and museum. However, he continued, it will require community support for this development. A \$5,000 grant has been pledged for architectural opinion and recommendations. "Friends of Hower House" has been organized to serve as a fund-raising agency and to serve in an advisory capacity to the University. He said that as and when outside money is available the restoration will proceed.

The President praised the two faculty members, Professors Joseph Lentini and James Richardson, who discussed the document "Guidelines for Academic Retrenchment Due to Financial Exigency" before the Educational Policy Committee of the Board. As a result of these presentations the chairman of the committee has asked the administration to arrange for work study committee sessions on the proposal. Dr. Guzzetta said that this was one instance where the 90-day response limit from the Board to Council would not apply since it had been submitted earlier. He added that the Board

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Committee was giving the document the attention it deserves, and that some action would be forthcoming in a reasonable time. He asked for opinions and there were no sentiments expressed against such an extension.

Relative to the Ohio Board of Regents, the President said that two members of our Board had met with the Regents Task Force and other state universities trustees and the Regents. The meeting he felt was not as productive as it might have been, but the members of the various Boards did have an opportunity for an exchange of views. The document being prepared by the Task Force was apparently already in the final writing stages.

As to the Inter-University Council, which he currently chairs, Dr. Guzzetta represents the urban universities as their spokesman vis-a-vis the residential institutions, and also as chairman has to represent the entire organization. There is a continuing independence evident among the members. Urban institutions need more money for their important services, but the residential universities claim greater need for their 24-hour student responsibilities. The Regents have now proposed a meeting once a week with a state university administrator from each institution to work with Mr. Coulter on determining a subsidy base revision. Dr. Noel Leathers, Vice President for Academic Affairs, will represent Akron. Dr. Guzzetta expressed a general concern that there is a necessity for financial assistance on the basis of fixed costs (regardless of enrollment), and also for undergirding of our noncredit programs which enroll more than 3,000 and which are an important community asset. We are supporting a revision in the formula. The next meeting of the Inter-University Council will take place in Columbus on April 8, to be followed that afternoon with a meeting with the Governor. This should provide an opportunity to share views on Ohio higher education.

Following an invitation for questions, Dr. Zangrando asked about the negative comment of a Board member as reported in the Buchtelite where he stated that he was offended by the exigency document. Dr. Guzzetta said that he felt the Trustee was not critical of Council's forwarding the statement but just that perhaps he considered the statement to be unnecessary at this point in time. The quotation was correct. Dr. Leathers added that the whole situation was very complex and the Board felt that the entire University, not just faculty, was affected by any financial change. The President thought the faculty presentation helped to bring the matter into focus. The Trustees, he felt, believed we had a good faculty, and they thought that all areas could be studied for reduced costs before considering any possible reduction in faculty.

In reply to Mr. Edminister's query as to the number of the Board at this meeting of the Educational Policy Committee, Dr. Guzzetta said there were four, which was the entire committee. Also in a response, he said that the faculty had not been asked to make a prepared printed statement. The President explained that the Board works through its four committees, and that the Chairman is an ex officio member of all of them. Since each member serves on two committees, often the entire Board is present when there are joint meetings. This will be the case in two weeks when there will be a combined meeting of the Buildings and Grounds and the Finance Committees to discuss the Performing Arts Hall.

Proceeding to reports of the Standing Committees, the Chairman called upon Dr. Poston who called the Council's attention to the document circulated at today's meeting summarizing the recent actions taken by the Academic Policies and Curriculum Committee. Although most of the curricular changes would be effective September 1974 and were reported here as a matter of record, several items required special sanction. (All of these changes are printed elsewhere in this issue of the AU Chronicle.)

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Dr. Poston moved the approval of the changes in the requirements for the undergraduate degrees in the Department of Biology. The motion was seconded and carried.

Dr. Poston moved the approval of the changes in the requirements for the B.A. degree with a major in Economics. The motion was seconded and carried.

Dr. Poston moved the approval of the degree requirement in Geography which would now eliminate the undergraduate department "tracks" or "options". The motion was seconded and carried.

Dr. Poston moved the approval of the change in the undergraduate major requirements in History. The motion was seconded and carried.

Dr. Poston moved the approval of the change in requirements for the B.S. and B.A. degrees with a major in Mathematics, and in Statistics. The motion was seconded and carried.

Dr. Poston moved that the addition of three courses in Physics be approved with the effective date of June 15, 1974. The motion was seconded and carried.

Dr. Poston moved that the Physical Therapy Assistant Program in Community and Technical College be dropped, but the courses retained. The motion was seconded and carried.

Dr. Poston then moved that the Council approve the statement on "Withdrawal Policy" submitted by the Academic Policies and Curriculum Committee and circulated today to Council. The motion was seconded. The statement read:

A student may withdraw from a course for any reason up to the mid-point of a quarter or summer session (the end of the fifth week of a quarter and the equivalent point of a summer session) with the signature of his/her advisor.

After mid-point of a quarter or a summer session, a student must have the written approval of both his instructor and his advisor. Should either refuse to sign the withdrawal form, the student may appeal to the Dean of his College, who shall make the final decision. This requirement need not be met when the student is requesting complete withdrawal from the University.

An approved withdrawal will be indicated on The University of Akron official academic record by a W. A student who leaves a course without going through the withdrawal procedure will be given an F in the course.

In response to a request for the rationale, Dr. Poston explained that it was to give greater emphasis on the instructor's signature for any change in the student status after midterm. Dr. Merrix opposed the student's having to get permission, but Dr. Poston pointed out that this could protect the student.

Dr. Watt cited the present lack of paperwork to show a student's withdrawal, and noted that a signature is not "permission", but gives the student a chance to talk to the instructor.

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Dr. Merrix moved to amend the second paragraph by deleting "both his instructor and". The motion was seconded.

Dr. Gerlach strongly opposed the amendment, because he felt that the instructor should be the one consulted, and he would not permit any withdrawal after midterm from his classes. He decried this attempt to reduce faculty responsibility and advocated more faculty responsibility in advising students.

Mr. Jamison also opposed the amendment as he emphasized that the instructor should discuss progress with the student.

Dr. Merrix and Dr. Fatemi considered the policy punitive to the student. Dr. Gerlach took exception to this view and observed that there was still provision to appeal to the Dean of the College. He would not sign any statement for a withdrawal which he considered false if a student was doing failing work since a withdrawal implies, he said, passing work. He wants the prerogative of meeting with and encouraging students retained. We already have a forgiveness policy in the provision to repeat a course, he continued.

Mr. Jamison considered it sounder for the instructor to sign than just the adviser, but Dr. Hayes opined that the instructor alone might succumb to unlimited power!

The amendment was put to a vote and lost 23 to 16.

Mrs. Sugarman then moved to amend the last paragraph by adding to the last sentence: "or the instructor may assign to the student a W." The motion was seconded.

Dr. Watt cautioned that this would cut out the adviser and would cancel the beginning of the statement which was for information purposes.

Mr. Rostan was concerned that anyone incapacitated might be unable to get the signature personally, but Dr. Leathers assured him that such a situation would be properly handled.

Following further discussion about alternatives, such as using "Incomplete" (which is already on the books), etc., the motion was put to a vote and lost.

Recognizing the need for a time limitation on the withdrawal, Dr. MacGregor moved to insert a clause in the first line of the second paragraph, "but prior to the final examination". The motion was seconded.

Several exceptions were pointed out, such as the possibility of no final examination being given, etc. Dr. MacGregor accepted Dr. Noble's friendly amendment to read, "but prior to the last week of classes". Dr. Barker, as original seconder, agreed. The motion to amend was put to a vote and carried.

In answer to Dean Oetjen's query, Dr. Leathers said that a student could not withdraw in the tenth week except that he might withdraw from all courses in the University.

Mr. Kerr asked why the provision for appeal stopped with the Dean of the College.

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Dr. Poston said that the Dean should be the final arbiter as he is the one most familiar with the situation, and the Academic Vice President and the President should not be involved.

Dean Samad observed that this sets up an explicit appeal, but there is always the implicit appeal to the Vice President, President and Board, and it is not necessary to set this forth in every instance.

Dr. Leathers affirmed this in response to Dr. Fatemi's question whether anything could follow this appeal route.

Mr. Macak requested that the terminology should be consistent in the statement, using "his/her".

The motion to adopt the amended Withdrawal Policy was put to a vote and carried. It now reads:

A student may withdraw from a course for any reason up to the mid-point of a quarter or summer session (the end of the fifth week of a quarter and the equivalent point of a summer session) with the signature of his/her advisor.

After mid-point of a quarter or a summer session, but prior to the last week of classes, a student must have the written approval of both his instructor and his advisor. Should either refuse to sign the withdrawal form, the student may appeal to the Dean of his College, who shall make the final decision. This requirement need not be met when the student is requesting complete withdrawal from the University.

An approved withdrawal will be indicated on The University of Akron official academic record by a W. A student who leaves a course without going through the withdrawal procedure will be given an F in the course.

Dr. Fatemi said that there was no report from the Campus Facilities Planning Committee (speaking for Mr. Briner who was absent), but he wanted to go on record as not having been asked to any meeting except one in the fall quarter. Dr. Fatemi said further that he felt the Procedural Committee should not assign Council members to committees which do not meet.

Speaking for the University Council Committee on Faculty Well-Being, Rights and Responsibilities, Dr. Brittain gave the following report:

Grievances:

Three have been filed to date.

One is essentially resolved—complainant has accepted a negotiated settlement with the University.

One is under investigation.

Will meet next week for initial consideration of third.

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Grievance Procedure:

On March 8, following February meeting of Council, FWBRR held two hearings on the G. P. for members of Council. We were in session twice that day for a total of three hours and fifteen minutes. We heard verbal testimony from only three members of Council and received written comments from only two others.

Since then, we have had two additional meetings which were partially devoted to the G. P. As a result of some of the testimony that we received and as a result of reviewing previous testimony and comments we agreed upon some possible amendments that might be made to the G. P. and I shall offer appropriate amendments from the floor when we consider the procedure under "Old Business".

Moreover, we also considered and approved some recommendations pertaining to the structure of the Committee and the manner of selection of the Committee members.

I will now yield the floor to Dr. Paul Merrix who will conclude this report by presenting the recommendations I just mentioned.

Dr. Merrix as a member of that Committee then distributed to Council two proposals, one an amendment to Article VI of the Council Bylaws, to separate the present Faculty Well-Being, Rights and Responsibilities Committee into two to be known as "The Faculty Well-Being Committee" and "The Faculty Rights and Responsibilities Committee"; and the other to delineate the membership and functions of the proposed Faculty Well-Being Committee.

Mr. Pollock explained that the rationale for dividing the current committee was the overwhelming volume of work assigned to the committee. There was no delineation of membership and functions for the proposed Faculty Rights and Responsibilities Committee as this was already provided for.

Dr. Brittain moved the adoption of these recommendations, but Dr. Leathers pointed out that these were proposed amendments, and he cited Article IX of the Council Bylaws which provides for the filing in writing of such proposals with the Secretary of Council at least two full academic weeks prior to a regular meeting at which they would be introduced. On the next agenda, then, they would be presented and discussed and tabled for action at the following meeting of Council.

Dr. Brittain then moved that the Council accept these as the report of the Committee on Faculty Well-Being, Rights and Responsibilities. The motion was seconded and carried. Dr. Leathers said it would be transmitted to the Secretary of Council and the Procedural Committee would have it on the agenda for the April 18 regular meeting of Council. Following presentation and discussion then, it would be tabled until the next meeting.

On behalf of the Committee on Faculty Research Projects, Dean Lively reported that ten additional grants had been awarded totaling \$12,893.75. The list appears elsewhere in this issue of the AU Chronicle. The Committee will accept further applications for the spring quarter.

UNIVERSITY COUNCIL MINUTES, REGULAR MEETING, 3/28/74

Dean Hansford, who could not attend today's meeting, had submitted the following report, read by the Chairman of Council: "Based upon the recommendation of the Extracurricular Activities Subcommittee and a telephone survey of the other members of the Student Affairs Committee, I would like to recommend University recognition for The University of Akron Chapter of the Office Education Association. The purpose of this organization is to encourage leadership development of those vocationally oriented students who are enrolled in business and office education programs." It was moved, seconded and carried that the new group be officially recognized. The report was accepted by title.

As Akron Representative on the Faculty Advisory Committee to the Chancellor of the Ohio Board of Regents, Dr. Fatemi said he had no report, but the next meeting would be held April 23.

The first item under "Old Business" concerned the Faculty Rights and Responsibilities Statement, including the Grievance Procedures. Dr. Brittain reminded the Council that it had been moved at the last meeting to delete Article V from the original document which had been adopted June 8, 1971, but which the Trustees had not accepted last fall. The Faculty Well-Being Committee proposed that the Grievance Procedures be separated and adopted.

The motion to delete Article V from the Statement on Faculty Rights and Responsibilities was put to a vote and carried.

Dr. Gerlach then moved to amend the last paragraph of the revised statement on "Grievance Procedures to be followed by Faculty Well-Being, Rights and Responsibilities Committee" which was submitted by that Committee, dated February 12, 1974, by adding the words, "and Secretary of University Council", following "Vice President for Academic Affairs". The motion was seconded.

Dr. Brittain read a rationale for the revised Grievance Procedures. (This will be circulated to Council with the agenda for the April 18, 1974 meeting of Council.)

Dr. Gerlach recognized the importance of confidentiality in some instances, but he also deplored the fact that too much business was conducted in the dark and covered up. He regretted that more people didn't follow the University's motto, "Let There Be Light". He considered that even the threat of exposure might help. Dean Samad opined that this was the best argument he had heard in favor of streaking! Dr. Zangrando did not consider the proposed amendment as an intrusion on confidentiality.

When Dr. Leathers asked Dr. Gerlach what he thought Council would do with such a report, the latter answered that it would be Council's decision whether to have it read or filed.

Dr. Leathers insisted that it be specified whether the faculty member involved would have the right to determine whether the report should be publicized. Dr. Gerlach stated that in a court of law, proceedings are public. If a faculty member goes to this committee, it should be recognized that the matter would be subject to public knowledge, but Council could decide on its ultimate disposition.

Dr. Brittain insisted that the Committee could not effectively operate in this kind of atmosphere. As a possible compromise, he offered this amendment, "In particular instances a detailed report will be filed with the Secretary of Council, subject to approval of all parties involved and further approval of Council, and may be read at a closed meeting of Council." The motion was seconded.

Dr. Jackson, commenting on the lateness of the hour and on the probable length of continuing discussion on the floor and the need of further rationale, moved to adjourn. The motion was seconded and carried, at 4:55 p. m.

CURRICULUM CHANGES

Approved March 28, 1974. Effective September 1974 unless otherwise indicated

BUCHTEL COLLEGE OF ARTS AND SCIENCESDepartment of Biology

Changes in requirements for undergraduate degrees in the Department of Biology. General Bulletin page 76.

Replace first sentence with: "The Bachelor of Science, the Bachelor of Arts and the Bachelor of Science in Medical Technology degrees are offered."

Add to end of second sentence "and the B.S. in Medical Technology degree."

Under "Medical Technology", delete 310:191 Introductory Human Physiology, and add 310:361-362 Human Anatomy and Physiology.

Delete 310:309 Microbiology and 310:328 Histology.

Add 310:444 Immunology.

Change the 3rd paragraph to read "The three year University Curriculum is followed by 12 months of Medical Technology instruction in an approved School of Medical Technology. The University is affiliated with the following Hospital Schools: Akron City Hospital, Akron General Medical Center, Barberton Citizens Hospital, Canton Aultman Hospital, Cleveland Metropolitan General Hospital, Mt. Sinai Hospital of Cleveland, St. Alexis Hospital (Cleveland), St. Thomas Hospital, The Children's Hospital of Akron. The student must apply to a Hospital School for a separate admission: The University cannot guarantee placement. Students may train at other approved schools after obtaining special permission from the Head, Department of Biology."

Under "Physiology and Pre-Professional" 2nd paragraph; add after 345:231-233-234-235 "Analytic Geometry - Calculus I, II, III, IV, V."

Change in requirements for the B.A. degree with a major in Biology:

The General Studies requirements and the second year of a foreign language. At least 26 credits in the humanities or social sciences, including at least two of the following 340:478, 340:479 History of Western Science and Technology, 340:464 Philosophy of Science. At least 36 credits in the biological sciences which must include 310:121-3 Principles of Biology, 310:246 General Genetics, 310:271 General Ecology, 310:272 Organic Evolution and 310:301 Cell Biology or, with permission, 310:207 Principles of Microbiology. At least one year of chemistry, including preferably, some biological chemistry (315:129, 130, 131 General Chemistry is suggested).

Add: 310:355 Ornithology. 4 credits. Prerequisite, 310:123 or permission. An introduction to the biology of birds: Classification, anatomy, physiology, behavior, ecology, natural history, and field identification.

CURRICULUM CHANGES, continued

Department of Chemistry

- Change: 315:401 Biochemistry. 4 credits.
to
315:401 Biochemistry I Lecture. 4 credits. Prerequisite, 265. An intensive study of modern Biochemistry. Topics covered include the biochemistry of amino acids and proteins, the study of enzymes and their role as biocatalysts, the structure and biochemistry of nucleotides, nucleic acids, carbohydrates, lipids and the biochemistry of energy storage and utilization.
- 315:404 Biochemistry Laboratory. 1 credit.
to
315:404 Biochemistry Laboratory. 1 credit. Prerequisite, 401/501. Topics include the chemical investigation of constituents of living matter such as amino acids, proteins, carbohydrates, lipids, and nucleic acids. The student will be exposed to modern biochemical laboratory techniques, such as the various types of chromatography, oxygen measurements, spectrophotometry and the use of radioisotopes.
- Add: 315:402 Biochemistry II Lecture. 4 credits. Sequential. Prerequisite, 401/501. Topics covered in this second quarter of biochemistry include the carbohydrate metabolism, the citric acid cycle, oxidative phosphorylation, lipid and amino acid metabolism nucleotide and nucleic acid biosynthesis, the biosynthesis of proteins and the regulation of gene function.
- 315:405 Biochemistry II Laboratory. 1 credit. Sequential. Corequisite, 402/502. In this second quarter course the student will be exposed to the biological synthesis and degradation of the biochemicals which he investigated in the previous quarter. Experiments will furthermore deal with the role of enzymes as biological catalysts, their characteristics and the utilization of energy released during the oxidation of biological compounds.

Department of Economics

Change in requirements for a B.A. degree with a major in Economics changed to read as follows:

Requirements for a B.A. degree with a major in Economics:

1. The General Studies and the second year of a foreign language.
2. At least 44 credits in the department including: [etc.]

Requirements for a B.S. degree in Labor Economics changed to read as follows:

1. The General Studies
2. At least 44 credits in the department including: [etc.]

CURRICULUM CHANGES, continued

Department of Geography

Change in Degree Requirements for the following:

Eliminate the undergraduate department "tracks" or "options".

Change: Change in Title only on the following:

335:438/538	<u>Geography of the Metropolitan Area</u>	
	to	
335:438/538	<u>Comparative Geography of World Metropolitan Areas</u>	
335:326	<u>Geography of Mineral and Power Resources</u>	
	to	
335:326	<u>Minerals, Energy and Ecology</u>	

Change in Credit Hours on the following:

335:350	<u>Anglo America</u>	from 3 to 4 credits
335:220	<u>Economic Geography</u>	from 3 to 4 credits

Drop:	335:312	<u>Geographic Aspects of Landforms.</u> 3 credits.
	335:324	<u>Geography of World Manufacturing.</u> 3 credits.

Add:	335:285	<u>The Geography of Social Institutions in the United States.</u> 4 credits. The course will be devoted primarily to the geographical variations in social institutions and social well-being within the United States. Some time will be spent also on the development of territorial social indicators and their possible use in city, regional and social policies.
	335:451	<u>Regional Problems in Canadian Geography.</u> 3 credits. Prerequisite, 335:350 or permission. A comprehensive analysis of the main regional problems facing Canada, not only internally but also internationally. The emphasis will be placed on the current political, economic, and social environments, their interrelationships and the inter-regional relationships which exist throughout the country.

Department of History

Change Undergraduate Major requirement for History:

340:201, 202, 203 (U.S. History survey) and 340:207, 208, and 209 (Modern European survey) from required for History majors to recommended.

CURRICULUM CHANGES, continued

The new program would read:

Requirements for a B.A. degree with a major in history:

The General Studies and a second year of a foreign language (French, German, or Russian suggested). A minimum of 45 credits in History, although up to 9 credits in cognate fields may be substituted with the advisor's approval. These credits in history must include 340:499 Historical Methods and some distribution of courses in American and European history. A suitable pattern would be:

340:201-202-203, <u>U.S. Survey</u>	12 credits
340:207-208-209, <u>Modern Europe</u>	12 credits

plus 21 additional hours and may include 340:489 Colloquim in History, highly recommended for history majors.

Change: Only Course Level changed on following 2 courses:

340:438	<u>The West in the Development of the U.S.</u> 4 credits.
	to
340:337	<u>The West in the Development of the U.S.</u> 4 credits.
340:439	<u>A History of American Immigration.</u> 4 credits.
	to
340:339	<u>A History of American Immigration.</u> 4 credits.

Change the Course Structure of 340:409/509, 410/510 and 411/511 Diplomatic History of the United States, 9 credits (3 credits each quarter) to the following:

340:407/507	<u>Diplomatic History of the United States 1776-1919.</u> 4 credits. Establishment of basic policies, diplomacy of expansion, and emergence of a world power.
340:408/508	<u>Diplomatic History of the United States 1914-Present.</u> 4 credits. Responses of government and public to the challenges of war, peace-making, and power politics.

Add: 340:489 Colloquim in History. 3 credits. A course designed for history majors in their senior year, to cut across existing chronological and subject matter lines and provide an opportunity for majors to relate their previous work in history to various topics or themes. The subject and instructor will vary.

CURRICULUM CHANGES, continued

Department of Mathematics and Statistics

Change: The following are Prerequisite changes:

- 345:115-116 Elementary Functions I, II. 3 credits each.
High school algebra and trigonometry
to
Three years of high school mathematics
- 345:231-232-233-234-235 Analytical Geometry-Calculus I, II, III, IV, V. 4 credits each.
116 or equivalent
to
116 or 118 (or equivalent)
- 345:410/510 Matrices and Linear Algebra. 3 credits
116 or permission
to
116 or 118 or permission
- 345:422-423/522-523 Applied Advanced Calculus II, III. 3 credits each.
235 to 420
- 345:482-483/582-583 Introduction to Real Analysis II, III. 3 credits each.
235 to 420
- 347:251-252 Introduction to Statistics I, II. 3 credits each.
101 (or equivalent)
to
College level algebra (or equivalent)
- 347:671-672 Advanced Behavioral Statistics I, II, III. 3 credits each.
101 (or equivalent)
to
College level algebra (or equivalent)
- 347:676 Nonparametric Statistics Methods. 3 credits.
252, 672 or permission
to
252 or 672 (or permission)

The following are changes in catalog descriptions and/or corrections:

Departments of Instruction

345: MATHEMATICS. Under both Requirements for a B.S. degree and a B.A. degree with a major in mathematics (page 79), change to read:

The courses 110:211 Numbers Communications, 345:140-195 Modern University Mathematics, 115, 116 Elementary Functions, 118 Pre-Calculus Mathematics,

CURRICULUM CHANGES, continued

206 Actuarial Mathematics, 406 Concepts in Algebra, 407 Concepts in Analysis, 410 Matrices and Linear Algebra do not meet major requirements.

347: STATISTICS. Under both requirements for a B.S. degree and a B.A. degree with a major in statistics (pages 79, 80), change to read:

The courses 110:211 Numbers Communication 345:140-195 Modern University Mathematics, 115, 116 Elementary Functions, 118 Pre-Calculus Mathematics, 206 Actuarial Mathematics, 406 Concepts in Algebra, 407 Concepts in Analysis, 410 Matrices and Linear Algebra, and 347:200 Statistical Laboratory, 251, 252 Introductions to Statistics I, II do not meet major requirements.

- Drop: 345:101-102-103 Finite Mathematics I, II, III. 4 credits each.
- Add: 345:140-195 Modern University Mathematics. 1 to 12 credits. Sets, basic algebra, functions, graphing, linear and quadratic functions, probability, differential and integral calculus of algebraic functions, partial derivatives and multiple integrals, matrices, linear programming, game theory, mathematics of finance, and selected topics.
- 345:140 Basic Language. 1 credit. Prerequisite, one year of high school algebra.
- 345:145 Functions and Graphing. 1 credit. Prerequisite, 140.
- 345:150 Combinatorics, Computers, and Variation. 1 credit. Prerequisite, 145.
- 345:155 Probability. 1 credit. Prerequisite, 150.
- 345:160 Analytic Geometry. 1 credit. Prerequisite, 145.
- 345:165 Differential Calculus. 1 credit. Prerequisite, 145.
- 345:170 Integral Calculus. 1 credit. Prerequisite, 165.
- 345:175 Multivariate Calculus. 1 credit. Prerequisite, 170
- 345:180 Matrices. 1 credit. Prerequisite, 145.
- 345:185 Systems of Equations and Inequalities. 1 credit. Prerequisite, 180.
- 345:190 Linear Programming. 1 credit. Prerequisite, 185
- 345:195 Mathematics of Finance. 1 credit. Prerequisite, 150.
- 345:118 Pre-Calculus Mathematics. 4 credits. Prerequisite, 3 years of high school mathematics. An introduction of pre-calculus mathematics: sets, number systems, absolute value, polynomial functions, systems of equations, trigonometric functions, trigonometric identities, complex numbers, solutions of triangles.

CURRICULUM CHANGES, continued

Change: The following is a change only in credit hour description:

345:424 Topics in Applied Mathematics. From 3 credits to 3 credits.
(May be repeated for a total of 6 credits)

Department of Physics

The following course additions effective June 15, 1974:

Add: 365:133 Music, Sound and Physics. 3 credits. Prerequisite, none. A qualitative introduction to sound production, transmission and perception, with emphasis on music. Descriptive treatment of vibration, waves, resonance; physiology of hearing; production of musical sounds; pitch, frequency, tone quality, harmonics, intensity; room acoustics; musical instruments, the human voice, electronic sound.

365:137 Light: Colors, Cameras and Perception. 3 credits. Prerequisite, none. A qualitative introduction to the understanding of light and color, their perception and recording. The nature of light: reflection, refraction, interference, diffraction, polarization, absorption, photoelectric effect; cameras: lenses, apertures, shutters, photographic emulsions and processing; color characteristics of light and films; the structure of the human eye, color perception, color sensitivity; lasers and holography.

365:605-606 Computer Physics: Numerical Solutions to Physical Problems, I and II. 3 credits. Prerequisite, 445:660. Review of Fortran and properties of digital computers. Computer solutions to physical problems, including Newton's, Schrodinger's and Laplace's equations; data reduction, curve fitting, plotting. Numerical methods are elaborated along with applications; problems are solved on the central computer. The second quarter may accommodate scientific problems of individual interest.

COLLEGE OF EDUCATIONDepartment of Counseling and Special Education

Add: 560:426 Career Education. 4 credits. Study of career education models and components (the individual and his environment, decision making, work adjustment skills, economic trends, etc.) and examination of procedures for their incorporation into regular elementary and secondary school programs.

CURRICULUM CHANGES, continued

COLLEGE OF ENGINEERINGDepartment of Mechanical Engineering

Change: The following are corrections to listings in the General Bulletin. There are no changes in title, credit or content of courses:

- 460:302 Thermodynamics III. 3 credits (3-0). Prerequisite, 301. Maxwell relations, real gases, ideal mixtures, fugacity, chemical reactions, phase and chemical equilibrium.
- 460:305 Thermal Science. 3 credits (3-0). Corequisite, 345:234. Credit not allowed for both 300 and 305. Introduction to the first and second laws of thermodynamics, perfect gas relationships, properties, introduction to conduction, convection and radiation heat transfer.
- 460:310 Fluid Mechanics. 3 credits (3-0). Corequisite, 460:322. Properties and behavior of gases and liquids at rest and in motion. The energy equation. Flow in conduits. Forces on body submerged in moving fluid.
- 460:316 Heat Transfer Processes. 3 credits (3-0). Prerequisite, 315. Continuation of 315. Analysis and design of heat transfer equipment. Natural convection heat transfer. Topics from conduction, convection and radiation heat transfer not covered in 315.
- 460:330 Dynamics of Machinery. 3 credits (2-1). Prerequisites, 320, 430:202. Dynamic analysis of components and machines, dynamic forces and reactions. Balancing of rotating and reciprocating masses. Analysis and design of gear trains and cams.
- 460:336 Analysis of Mechanical Components I. 3 credits (3-0). Prerequisite, 430:202. Analysis of stress due to static, dynamic, thermal, and time dependent loads.
- 460:337 Analysis of Mechanical Components II. 3 credits (3-0). Prerequisite, 336, 380. Application of stress analysis and failure theory to design of mechanical components.
- 460:380 Mechanical Properties of Materials. 3 credits (3-0). Prerequisite, 430:202. Structures of common metallic materials and the study of their macroscopic mechanical behavior. Theories of failure.
- 460:392 Air Conditioning Laboratory. 1 credit (0-1). Prerequisite, 302. The application of the principles of thermodynamics, heat transfer and fluid mechanics to analyze a practical air conditioning unit.
- 460:393 Internal Combustion Engines Laboratory. 1 credit (0-1). Prerequisite, 301. A study of the application and performance of reciprocating and rotary engines.

CURRICULUM CHANGES, continued

- 460:394 Heat Transfer Laboratory. 1 credit (0-1). Prerequisite, 315. An experimental investigation of certain conduction, convection and radiation heat transfer processes.
- 460:396 Computer Methods Laboratory. 2 credits (0-2). Prerequisite, 361. Application of digital computers to solution of typical problems in heat transfer, fluid dynamics, machine design, kinematics, strength of materials, elasticity and vibrations and dynamics.
- 460:410 Environmental Control. 3 credits (3-0). Prerequisites, 302 and 315, or permission. Thermodynamics of gas mixtures. Design and selection of air conditioning equipment. Control of gas mixtures, heating, cooling and humidity.
- 460:411/511 Compressible Fluid Mechanics. 3 credits (3-0). Prerequisites, 301, 310. Introduction to the effects of fluid compressibility in one-dimensional flows, subsonic and supersonic flows of a perfect gas in nozzles, diffusers and ducts including shockwaves, friction effects and effects of heat transfer.
- 460:413/513 Jet Propulsion and Turbomachinery. 3 credits (3-0). Prerequisite, 411/511. Thermodynamic and fluid dynamic analysis of rotary compressors and turbines with applications to jet propulsion, gas turbines, pumps and fans.
- 460:415 Energy Conversion. 3 credits (3-0). Some topics from the fields of internal combustion engines, cycle analysis, modern conversion devices.
- 460:422/522 Experimental Stress Analysis I. 3 credits (3-0). Prerequisite, 430:202 or 430:305. Experimental methods of determining stress or strain. Use of brittle lacquer, strain gages and photoelasticity.
- 460:423/523 Introduction to Astronautics. 3 credits (3-0). Prerequisites, 310, 322. Introduction to rocket propulsion, including basis equations, staging and types of rockets. Introduction to orbital mechanics including satellite orbits, ballistic flight and innerplanetary transfer orbits.
- 460:425/525 Engineering Acoustics I. 3 credits (3-0). Prerequisite, 431/531. Energy of vibration, analysis by Fourier's Theorem, phase and mechanical impedance concepts, wave propagation and reflection, plane waves, spherical waves and radiation impedance.
- 460:430/530 Engineering Dynamics I. 3 credits (3-0). Prerequisite, 322. Engineering applications of: systems of particles, work, energy, Lagrangian mechanics, rigid body kinetics, the inertia tensor.

CURRICULUM CHANGES, continued

- 460:460 Mechanical Design I. 4 credits (4-0). Prerequisites, 301, 310, 336; 315 desirable. The design process. Creativity and inventiveness. The tools of decision-making probability, reliability, optimization.
- 460:461 Mechanical Design II. 4 credits (1-3). Prerequisite, 460. The interdisciplinary aspects of design. Case studies and projects.
- 460:600 Gas Dynamics I. 3 credits (3-0). Prerequisite, 411/511 or permission. Derivation of basic equations for flow of a compressible fluid. Topics from one-dimensional flow. Two-dimensional irrotational flow. Method of small perturbations. Method of characteristics.
- 460:608 Thermodynamics I. 3 credits (3-0). Prerequisites, 302, 345:236; 345:432 desirable. Extension and generalization of the basic concepts of thermodynamics. Thermodynamic systems and states. Criteria for equilibrium. Third law.
- 460:610 Dynamics of Viscous Flow I. 3 credits (3-0). Derivation and solution of equations governing viscous flow. Applications include unsteady flows, slow viscous flows, parallel flows, lubrication theory and introduction to laminar boundary layers.
- 460:615 Conductive Heat Transfer. 3 credits (3-0). Prerequisites, 315, 345:236; 345:432 desirable. Study of the one-two-and three-dimensional heat conduction equation. Development of theoretical, graphical and analog techniques for analysis and design.
- 460:620 Experimental Stress Analysis II. 3 credits (3-0). Prerequisite 422/522. Dynamic strain measurement and design of transducers using electrical resistance strain gages. Techniques for measuring surface strain.
- 460:622 Continuum Mechanics. 3 credits (3-0). Analysis of stress and deformation at a point. Derivation of the fundamental equations by applying the basic laws of conservation of mass, energy and momentum in mechanics and the laws of thermodynamics. Relations between stress and strain and strain rate. Specialized laws affecting the stress-strain relationships. Extensions to polar materials.
- 460:623 Applied Stress Analysis I. 3 credits (3-0). Prerequisite, 622. Continuation of Continuum Mechanics with specific applications to solid media. Development of energy theorems due to Reissner, Washizu and generalized Hamilton's principle. Solutions of static and dynamic problems are developed using complex variables, integral equations, integral transforms and potential theory.

CURRICULUM CHANGES, continued

- 460:625 Analysis of Mechanical Components. 3 credits (3-0). Theories of failure. Determination of strength-static loading, fatigue, creep and stress rupture.
- 460:633 Engineering Dynamics II. 3 credits (3-0). Prerequisite, 430/530. Engineering applications of: Euler's differential equation, Hamilton's principle, the principle of Manpertuis oscillatory motion, phase space and the Hamilton-Jacobi equation.
- 460:634 Engineering Acoustics II. 3 credits (3-0). Prerequisite, 425/525. Beam width and directivity of radiation sources, microphones and speakers, Huygen's principle and diffraction of sound waves, physiology and response criteria of the human ear, Fourier analysis of steady state and transient noise.
- 460:710 Dynamics of Viscous Flow II. 3 credits (3-0). Prerequisite 610 or permission. Integral methods in boundary layer analysis. Introduction to turbulence. Developing flows. Turbulent boundary layers. Practical methods of solution of boundary layer problems.
- 460:717 Convection Heat Transfer II. 3 credits (3-0). Prerequisite, 716. Topics include heat transfer to liquid metals as well as high Prandtl number fluids, and hydrodynamically and thermally unsteady conditions.
- 460:720 Applied Stress Analysis II. 3 credits (3-0). Prerequisite, 623. Continuation of Applied Stress Analysis I. Development of approximate solution techniques including asymptotic methods, the method of weighted residuals (Rayleigh Ritz's, Galerkin's, Trefftz's, collocation, least square, etc.) and finite elements.
- 460:726 Non-Linear Continuum Mechanics. 3 credits (3-0). Prerequisites, 622 or permission. Finite deformation and strain, stress, constitutive equations, strain energy functions. The solution of finite deformation problems hypoelasticity, electroelasticity and micro-polar theories.
- 460:729 Non-Linear Engineering Problems II. 3 credits (3-0). Prerequisite, 629. A continuation of 629. Study of non-linear partial differential equations governing various phenomena of mechanics. Development of a variety of solution techniques, method of weighted residuals, method of lines, perturbation techniques and finite element and difference procedures.
- 460:741 Advanced Control Topics. 3 credits (3-0). Prerequisite, 440:674, or permission. Advanced theory of control systems. Discussion of recent research such as Optimal Controls for engineering systems with time delay and distributed parameters and large-scale systems.

CURRICULUM CHANGES, continued

COLLEGE OF BUSINESS ADMINISTRATIONDepartment of Finance

- Change: 640:314 Credits and Collections. 3 credits.
to
- 640:314 Credit and Collections. 3 credits. Nature and fundamentals of credit investigation and analysis, credit extension, collection operations, collection aids and problems.
- 640:318 Principles of Insurance. 4 credits.
to
- 640:318 Risk Management and Insurance. 4 credits. Beginning with the concept of risk and risk management function in a firm, the principles of insurance are developed in the property, marine, casualty, and business interruption areas. The principles of life and health insurance are related to the employee benefit program of the firm.
- 640:320 The Legal Environment of Business. 5 credits.
to
- 640:320 The Legal Environment of Business. 5 credits. A course designed to give the student a basic understanding of legal reasoning and analysis within the business system. Discussions include court systems and procedures; the various legal relationships of citizens and society; the various business organizations; commercial transactions; and the legal aspects of government regulation of business.
- 640:321- Business Law. 321, 5 credits; 322, 4 credits.
322 to
- 640:321 Business Law I. 5 credits. Descriptive and analytical materials presenting the business system within a legal framework. Discussions are designed to develop legal reasoning and understanding of the adjudicative process within the substantive areas of contractual obligation, agency relationships, partnerships, corporations. accountant's legal responsibility, federal securities regulation, and anti-trust law.
- 640:322 Business Law II. 4 credits. Prerequisite, 321. A continuation of descriptive and analytical materials, involving applications of law from the Uniform Commercial Code in the area of sales, commercial paper, and secured transactions. Additional discussions include legal interests in real property, wills, estates, trusts, personal property, bailments, insurance, suretyship, bankruptcy and labor law.

CURRICULUM CHANGES, continued

- Change: 640:338 Financial Intermediaries. 5 credits.
to
640:338 Financial Intermediaries. 5 credits. A study is made of the flows of funds. The role of major financial intermediaries on the demand and supply side of funds is analyzed. The function of the money and capital markets is reviewed with emphasis on the outlook for changes in interest rates and their impact upon the administration of specific financial intermediaries.
- 640:343 Investments. 5 credits.
to
640:343 Investments. 5 credits. Prerequisite, 371. The range of investment media is explored, alternative investment programs are considered and the role of securities markets through which these goals can be achieved is studied. The course includes limited discussions of analysis of securities and portfolio management.
- 640:371 Business Finance. 5 credits.
to
640:371 Business Finance. 5 credits. Prerequisites, 620:222 (or 401) and 325:247 or 325:201 and 202. A basic course dealing with the problems of the business firm from the financial manager's point of view. Topics include planning and managing the sources and uses of short-term and long-term funds, capital budgeting, and optimum financial structure.
- 640:436 Commerical Bank Management. 5 credits.
to
640:436 Commercial Bank Management. 5 credits. Prerequisite, 338. A study of administrative policy determination and decision making within the commercial bank. Policy making in the areas of liquidity, load and security investment, and sources of funds are studied through the use of the case method and a computer simulation game.
- 640:450 Business and Society. 5 credits.
to
640:425 Business and Society. 5 credits. Prerequisite, senior standing. A conceptual course which considers the financial, economic, legal, and socio-political implications of business in our contemporary society. Issues involving such questions as changing social values, public policies related to business, and the economic and legal framework for business decisions are discussed.

CURRICULUM CHANGES, continued

Department of Management

Change:	650:473	<u>Business Policy.</u> 5 credits.
		to
	650:473	<u>Business Policy.</u> 5 credits. Prerequisites, 160 credits and all other business core program courses. This advanced course is designed to integrate the specialized areas of business administration. The rational decision-making skills of the top manager and analytical skills are enhanced through intensive case analysis and a computer business game. Investigated are questions of business environment, strategy, objectives, evaluation, and control.
	650:349	<u>Quantitative Business Analysis II</u> from 4 to 3 credits.
Drop:	345:101-102-103	<u>Finite Mathematics I, II, III.</u> 12 credits.
Add:	345:140-145-150-1601165-170-180-185-195	<u>Modern University Mathematics.</u> 9 credits.
	650:340	<u>Introduction to Computer Applications for Business.</u> 4 credits. Prerequisite, none (445:201 or its equivalent is recommended). Emphasis will be given to solving business problems through simple written programs or adaptation to more complex "canned programs." Topics included are applications of flowcharting and business language as applied to problems in the functional areas of business.

COLLEGE OF FINE AND APPLIED ARTSDepartment of Home Economics

Change:	740:316	<u>Nutrition in Health.</u> 3 credits.
		to
	740:316	<u>Normal Nutrition.</u> 5 credits.
	740:426	<u>Nutrition in Disease.</u> 2 credits.
		to
	740:426	<u>Therapeutic Nutrition.</u> 3 credits.
	740:449	<u>Draping and Design</u> from 3 to 4 credits.
	740:470	<u>Media in Home Economics.</u> 3 credits.
		to
	740:470	<u>Techniques of Promotion for Home Economics.</u> 3 credits.

FACULTY RESEARCH PROJECTS

Projects Approved by the Faculty Research Committee 1973-74
(February 22 and March 4, 1974)

	<u>Amount</u>
Dr. Leslie Carr "Economic factors in the history of ethnic immigration to south Lorain"	\$ 600.00
Dr. C. F. Chen "Investigation of acoustic feedback in public address system"	1,090.00
Dr. H. T. Chu and Dr. P. N. Henriksen "Extreme quantum effects on the electronic conduction in thin film semimetals" (contingent upon purchase of the required solenoid by the Physics Department)	3,050.00
Dr. Stephen Darling "The synthesis and reactions of cycloalkenephosphonates and cycloalkenesulfones"	675.00
Dr. Elizabeth B. Erickson and Dr. Isobel L. Pfeiffer "Test of an empirical model of factors affecting academic salaries and promotions"	50.00
Dr. James Gillham "The determinants of stress behavior among incarcerated juvenile offenders"	393.25
Dr. John Marwitt "Construction of a cultural chronology for the Ariari River Basin, Meta, Colombia"	475.00
Dr. Harvey L. Sterns "Developmental change in perceptual-motor reaction pattern and perceptual style"	2,520.00
Dr. Lloyd J. Watson "The effects of mercury on the susceptibility of fish to bacterial infection"	1,138.00
Dr. Robert K. Winn "Coupling and beam steering in integrated optics"	2,902.50
	<u>\$12,893.75</u>