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M I C H I G A N   S T A T E   U N I V E R S I T Y   O A K L A N D  
R O C H E S T E R ,   M I C H I G A N

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SCHOOL YEAR 1960 - 1961



ARCHIVES

## MICHIGAN STATE UNIVERSITY OAKLAND

### Purposes

The primary purpose of a university is to encourage the maximum possible intellectual development of each student.

This is not to imply that other values--morality, citizenship, personality--are not important or shall be ignored by a university, but a student entering a university without the knowledge of what constitutes the primary objective of the institution starts with a handicap.

Each social institution exists to accomplish a purpose. Churches have their fundamental objectives in the realm of morality and religion, industries must produce goods, families must rear the young. Only colleges and universities have been established by society specifically to deal with the human capacity for learning at an advanced level. To forget this is to betray the trust of the society which supports our institutions of higher learning.

Of course, students do not live in a vacuum, and there are secondary learning experiences which not only support the primary, but which are important in themselves. Living and working with other students can teach much about man's historic endeavor to control himself and achieve desirable objectives through cooperation. The assumption of responsibility in student organizations can develop integrity. And most important in a public university is the realization by its students that the knowledge and skills which they acquire must be brought to the service of the people composing their society.

Stated another way, it is the university's obligation to assist each student to attain the knowledge and skills necessary to make him proficient as a professional, competent as a citizen, and happy as a human being; and all of this it must do in a context which never lets the student forget the words of a very wise scholar, "No man has a right to lead such a life of contemplation as to forget in his ease the service due to his neighbor."

Since the official catalog for Michigan State University Oakland will not be printed until late summer, it is important that the following information be gotten into the hands of prospective students, school personnel and friends of the institution.

Enclosed you will find the following:

1. Statement of Purposes
2. General information regarding University Policy
3. Guidelines for the MSUO Program
4. Curricular programs for Liberal Studies and the four academic areas to be offered

At the opening of school in September, each student will receive a comprehensive catalog which will identify the total educational picture at this institution.

If you have questions with regard to any of the material, you may contact Herbert N. Stoutenburg, Jr. Director of Admissions and Registrar, MSUO, Rochester, Michigan. Mr. Stoutenburg's telephone number is FEderal 8-4515.

Our hope is to keep you as completely informed as possible, and to accomplish this purpose we will always be available for your service.

UNIVERSITY CALENDAR

Fall Term 1960

September 15 - 16	Thursday and Friday	Orientation and registration
September 19	Monday	Classes begin (8:00 A.M.)
September 23	Friday	Last day for late registration
October 24	Monday	Last day for withdrawal with one-half refund of course fee
November 14	Monday	Last day for withdrawal with "N" grade
November 23	Wednesday	Thanksgiving recess begins (5:00 P.M.)
November 28	Monday	Classes resume (8:00 A.M.)
December 7-12	Wednesday thru Monday	Final examinations
December 12	Monday	Fall term closes

ADMISSION TO THE UNIVERSITY

A candidate for admission must be a graduate of an approved high school and must have been in the top half of his graduating class. Also, he must have the recommendation of the high school principal, endorsing him as a sound college risk. Finally, the candidate must meet the following high school subject requirements:

English	3-unit minimum	Agriculture	Other subjects accepted by the high school toward graduation
Foreign Languages	6-	Home Economics	
Mathematics	unit	Commercial	
Sciences	mini-	Industrial	
Social Studies	mini-	Art	
	minimum	Music	

10-unit minimum /

13-unit minimum /

15-unit minimum /

Mathematics Requirements

Biological Sciences	3 units
Business Administration	3 units
Engineering Science	3 units
Mathematical & Physical Sciences	3 units

To meet the mathematics requirement of three units, one should present one and a half years of algebra, one year of geometry and one half year of trigonometry.

Under the Michigan Secondary School-College Agreement, MSUO will accept students from among the more able graduates of accredited high schools without regard to the pattern of subject matter completed, provided such students are recommended by their high school principals.

If a student is not from the upper one-half of the class, he may still apply to MSUO to take qualifying examinations. The results of these examinations plus other criteria established by the University will determine whether or not he will be admitted to a degree program.

#### ADMISSION WITH ADVANCED STANDING

A student desiring to transfer to the University from another college or university should complete an application form and request the registrar of his school to send an official transcript of his record. Each application will be considered upon its individual merits.

#### FEES

All fees are required at the time of registration.

##### Course Fees

<u>Credits</u>	<u>Michigan Resident Fee</u>	<u>Additional Non-Resident Fee</u>
1 to 3	\$20.00	\$ 25.00
4 to 6	35.00	40.00
7 to 9	50.00	60.00
10 to 11	70.00	80.00
12 and up	85.00	100.00

Payment of the \$85.00 general course fee entitles the student to admission without extra charge to the regularly scheduled lecture series. It also covers laboratory fees including normal breakage.

Veterans under Public Law 550 pay their fees at the time of registration.

##### Additional Fees

A fee of \$10.00 must accompany all applications for admission. This fee will be applied toward the first term's tuition for those students who are accepted and enroll.

Students registering after the scheduled registration dates will be assessed a late fee of \$15.00 for the first day and \$5.00 more for each day after that up to the limit of \$25.00. This fee will not be refunded.

### Refund of Fees

Students officially withdrawing from the university before the beginning of the sixth week of the term will, if the Registrar approves, be refunded one half of all course and out-of-state fees paid as recorded by the Business Office.

### Out-of-State Tuition Rules

The following regulations concern payment of the out-of-state tuition fee of \$100.00 a quarter:

1. No undergraduate shall be deemed a resident of Michigan for the purpose of registering in Michigan State University Oakland unless he has resided in this State six months immediately preceding his first enrollment.
2. No one may gain or lose the status of a resident while a student at the university.
3. The residence of minors shall follow that of their legal guardian except where guardianship has been established in the state obviously for the purpose of evading the fee.
4. Aliens who have secured the Declaration of Intent papers and have otherwise met the requirements for resident shall be considered residents.
5. The residence of any person, other than a parent or legal guardian, who may furnish funds for payment of University fees, shall in no way affect the residence of the student.

### VETERANS

Students eligible to attend the university under the sponsorship of Public Laws 16, 346, 550 or 894 must obtain a "Certificate for Education and Training" from the Veterans Administration. Under Public Law 550, the veteran pays his own fees and buys his own books. Reimbursement is initiated by completing a monthly report of attendance form at the Office of the Registrar.

### ATTENDANCE

The student who is sincerely interested in a university education recognizes that academic progress is closely related to regular class attendance. Consequently, instructors are given the prerogative of dropping any student from class when he deems the number of unexcused absences as excessive. Absences of students who are deficient in scholarship at mid-quarter and of all students at the end of the quarter will be reported to the Registrar. Absences will be considered when determining grades.

### UNIT OF CREDIT

The unit of credit is the quarter or term hour. One credit is based on three hours of work per week for ten weeks in lecture, recitation, laboratory, field or preparation. To convert quarter hours to semester hours, the quarter hours should be multiplied by 2/3.

## GRADES

The scholastic standing of a student's work is evaluated as follows:

A--excellent	F--failure
B--good	I--incomplete
C--average	N--no grade
D--inferior	X--absent from examination

The grade of "I" (incomplete) is a temporary grade given for work which is passing but lacking in quantity to meet course objectives. This grade is given in cases of prolonged illness or for other satisfactory reasons. A grade of "I" must be removed by completing the required course work before the close of the next term in attendance or an "F" will be recorded for the course. An incomplete cannot be given prior to the end of the eighth week of the quarter and then only upon the department head's recommendation.

The grade of "N" (no grade) is given only when the student is permitted to drop a course in which he is doing satisfactory work after the two calendar week deadline. This grade can be given only with the approval of the dean.

A student absent from a final examination with the written approval of the dean will receive an "X" grade. This grade must be removed by taking the examination at the time scheduled for the re-examination or receive an "F" in the course.

## GRADE POINT SYSTEM

The point system is used to indicate the scholastic achievement of the student. Under this system, honor points are assigned for each letter grade as follows:

Four points are allowed for each credit of A; three for B; two for C; and one for D. No points are given for F, I, N or X. A grade point average of 2.00 is required for graduation.

To compute the student's quarter or cumulative grade point average, the total honor points earned is divided by the total credits attempted.

## CHANGE OF PROGRAM

Any changes in a student's program of study after registration must have the written approval of his academic advisor and the head of the department concerned.

No courses may be added after one calendar week of classes, and no courses may be dropped after the second calendar week of classes without the approval of the dean. Courses approved for dropping before the close of the second week of classes will not be entered on the student's record. However, after that date a grade of "F" will be recorded unless the student receives an "I" or "N". A grade of "F" will be given a student in any course dropped unofficially.

## SCHOLARSHIPS

Michigan State University Oakland recognizes promise and the intellectual attainment of its students by the granting of a number of scholarships. These awards vary in value and are available in a limited number to entering students.

New students should make application for scholarships through the Scholarship Office. Tuition scholarships are made for one year but may be renewed throughout the four-year course provided the recipient's performance merits it.

Probation for any reason shall be considered justifiable cause for the withdrawal of a scholarship.

### MSUO Tuition Scholarship

The Board of Trustees has authorized the Committee on Scholarships to award one scholarship for each approved high school in Macomb and Oakland Counties that has a qualified candidate.

### Eligibility

Candidates will be selected on the basis of outstanding scholastic attainment, participation in school and community activities, demonstrated citizenship and leadership qualities and financial need. The applicant must rank in the upper twenty per cent of his class, have earned a "B" average in his academic subjects and have the recommendation of the high school principal.

## EVENING CLASSES

A minimum number of classes are offered from 6:00 - 8:00 P.M., Monday through Thursday. Most classes are held for two hours two evenings a week.

Admission requirements for the evening classes are the same as for the day time students. (MSUO has no non-matriculated students in its credit program.)



### MSUO GUIDELINES

1. The program will be relatively simple in terms of variety, but will place great emphasis on quality and depth.
2. Major emphasis will be placed on the development of liberally educated students, regardless of the professional field chosen--thus avoiding unnecessary specialization and vocationalization of courses and programs.
3. A clear-cut priority of effort will be placed on developing a first class undergraduate program.
4. During the freshman year, the normal student load will be four courses. In sophomore, junior and senior years, the load normally will be three five-credit courses which may be selected by the student during any three of the last nine quarters.
5. Physical education will not be required for any student, although physical education on an informal basis will be available and students will be encouraged to participate.
6. ROTC will not be offered.
7. Liberal Studies Courses, which will comprise about half of a total curriculum in each academic field, will be distributed over the entire four years, although more heavily concentrated during the first two years.
8. No courses of a sub-collegiate character will be offered by MSUO faculty, although refresher courses in high school tool areas may be offered and taught by high school teachers on an extra fee basis.
9. The MSUO faculty will place strong emphasis on writing in all courses, quality of student's writing being an important concern.

THE LIBERAL STUDIES PROGRAM  
(Required of all Students)

The Liberal Studies program may be defined as those liberal arts courses indispensable to the education of every college graduate regardless of his major. This program--as described below--will constitute about one-half of the course work spread over a four-year period.

The Liberal Studies requirements are:

- ✓ 1. Three terms of History and Development of Western Civilization: the development of western civilization from Greek times to the present, embracing art, literature, philosophy, and religion.
2. Three terms of History and Philosophy of Science: the development of scientific and mathematical methods, philosophy, and knowledge from Greek times to the present. (One term for Engineering Science and Science majors.)
3. Six terms of either a modern foreign language or of mathematics. This will be an option for some students, but the choice of one or the other will be required in certain curricula. The foreign languages offered in the first year will be French and Russian, with a particular emphasis on the latter.
- ✓ 4. Three terms of Social Science: introductory courses in economics, political science, sociology and anthropology, and social psychology.
5. Three terms of Foreign Studies: area approach to contemporary non-western cultures, with especial attention to the Far East, the Mid-East, Africa and Latin America. (Two terms for engineers.)
6. One term of Great Issues: a study of a few carefully selected major issues of paramount contemporary significance.

FRESHMAN YEAR

1st Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science\* or  
Chemistry  
Foreign Language\* or  
Mathematics

2nd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science\* or  
Chemistry  
Foreign Language\* or  
Mathematics

3rd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science\* or  
Chemistry  
Foreign Language\* or  
Mathematics

SOMOPHORE YEAR

Foreign Language or  
Mathematics  
History & Philosophy  
of Science

Foreign Language or  
Mathematics  
History & Philosophy  
of Science

Foreign Language or  
Mathematics  
History & Philosophy  
of Science

JUNIOR YEAR

Foreign Studies

Foreign Studies

Foreign Studies

## SENIOR YEAR

### Great Issues

\*Engineering Science and Science students will take Chemistry and Mathematics during the freshman year and Social Science during the sophomore year or as part of the electives available; they will take History and Philosophy of Science during the last quarter of the sophomore year. This will be a course especially designed for Science students.

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## LIBERAL ARTS

The liberal arts subjects have their own importance and, at the same time, they are essential to the full development of men simply as educated citizens, whether they are to be teachers, businessmen or engineers. In recent years the pressure on our universities has increased to produce the kind of graduate who has a broad liberal education; and this demand, which is rapidly becoming an expectation, has come from such differing voices as foreign service, scientific research agencies and industrial management.

The curriculum developed here aims at the growth of the individual as a thinker, creator and mature participant in a democratic society. This is the broad commitment of the liberal arts: to produce young men and women with a substantial knowledge of their culture, including a sound understanding of the social and economic life of their society. Properly taught, the liberal arts have the capacity to foster such desirable qualities of mind as humility and sympathy. At the same time, they encourage an inquiring spirit and independence of thought.

By means of liberal arts study, students will learn to measure the value of their own and other societies. They will concern themselves with the controversies and issues which have preoccupied men and which have received cultural expression. An effort has been made to strike a proper balance in the curriculum, so that students will have a broadly based knowledge as well as knowledge in depth in special areas. This program is designed to provide students with the resources not only to serve society effectively, but to lead it as well.

## FRESHMAN YEAR

### 1st Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

### 2nd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

### 3rd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

## SOPHOMORE YEAR

Foreign Language or  
Mathematics  
History & Philosophy  
of Science  
Major

Foreign Language or  
Mathematics  
History & Philosophy  
of Science  
Major

Foreign Language or  
Mathematics  
History & Philosophy  
of Science  
Major  
Elective

(cont'd)

JUNIOR YEAR

Foreign studies  
Major  
Elective

Foreign Studies  
Major  
Elective

Foreign Studies  
Major  
Elective  
Elective

SENIOR YEAR

Elective  
Major  
Major

Elective  
Major  
Elective

Great Issues  
Major  
Elective  
Elective

\*\*

SCIENCE

FRESHMAN YEAR

History & Development of  
Western Civilization  
Composition & Literature  
Chemistry  
Mathematics

SOPHOMORE YEAR

Social Science  
Major  
Mathematics

Social Science  
Major

History & Philosophy of  
Science  
Major  
Social Science

JUNIOR YEAR

Foreign Studies  
Mathematics  
Major

Major

Major  
Elective

SENIOR YEAR

Elective  
Major  
Major

Elective  
Major  
Elective

Great Issues  
Major  
Elective  
Elective

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TEACHER EDUCATION

The development of an effective program for the preparation of teachers is to be a campus-wide responsibility at Michigan State University Oakland. It is not likely that a separate administrative unit for this purpose shall be established in the near future, if at all.

(cont'd)

Essential ingredients in the program for developing teachers for the public schools include: (1) a sound program in the liberal studies, reinforced by solid subject matter preparation in the teaching fields; (2) a knowledge of how children grow and learn; (3) an understanding of the functions of the school in the community setting; and (4) skill in handling the methods and materials of instruction. The curriculum described here has been designed with these purposes in mind.

More specifically, the curriculum proposes that all those studying for the teaching profession will take the following:

1. The program in the liberal studies.
2. A major and minor in the subjects which they will teach.
3. The psychology of human behavior, with special reference to child growth and learning.
4. The sociology of the school and community, with special reference to the nature of the community, the role of the school and relationships between the two.
5. Methods instruction in subjects to be taught.
6. An internship in the public school.

It is hoped that in operation the teacher education program at Michigan State University Oakland will develop a close and cooperative working relationship with the public schools of the community, and will be able to make substantial laboratory use of these schools for observation and internship.

### TEACHER EDUCATION

#### FRESHMAN YEAR

##### 1st Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science of  
Chemistry  
Foreign Language or  
Mathematics

##### 2nd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

##### 3rd Quarter

History & Development of  
Western Civilization  
Composition & and Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

#### SOPHOMORE YEAR

History & Philosophy  
of Science  
Psychology

Foreign Language or  
Mathematics

History & Philosophy  
of Science  
Psychology

Foreign Language or  
Mathematics

History & Philosophy  
of Science  
Psychology (Human  
Development)

Foreign Language or  
Mathematics

#### JUNIOR YEAR

Sociology

Elective  
Foreign Studies

Sociology

Internship  
Foreign Studies

Sociology (School &  
Community)

Elementary School Methods  
Foreign Studies  
Elective

## SENIOR YEAR

Internship-Methods  
Elective  
Elective

Elementary School Methods  
Elective  
Elective

Great Issues  
Elective  
Elective  
Elective

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## BUSINESS ADMINISTRATION

Conceptually, there are five objectives to the business administration curriculum.

The first is that each student will be provided with the kind of educational experience which assures an educated and literate citizen. This objective will be satisfied through the commitment of approximately 50% of the curriculum to the liberal studies program described earlier.

The second objective is that of establishing a "bridge" between the liberal studies program and that designed to provide the educational basis for modern business leadership. In this "bridge" area there are studies of the American economy, managerial economics, legal and political environment of business, and consumer and purchase behavior.

The third objective is the building of a foundation for effective business administration. In this area the curriculum includes such topics as organization and executive behavior, market enterprise, fiscal administration, management of human resources, analysis of production systems, materials and product logistics, sales and cost forecasting, and business research methods.

Fourth, the curriculum provides an opportunity for the graduate to understand something of the broader implications of business leadership and the business community. To achieve this objective, the program provides courses as: Social responsibilities of the businessman, concentration of economic power, international business, and great issues.

Finally, provision is made in the curriculum for devoting ten or more hours to a limited professional concentration in whatever area a student might choose from among those being offered.

### BUSINESS ADMINISTRATION COURSE CONCEPTS

#### Consumer and Purchase Behavior

Follows social science in a course to relate the student to the business world. This is fundamental to business in the sense that we have a consumer-oriented vs. market-oriented economy.

#### Legal and Political Environment

Follows economics as another dimension within which business action takes place. Relates back to basic education in such areas as Roman and English common law, and replaces the traditional business law course.

#### Market Enterprise

Focuses on the external environment for business action; examines means by which firms grow and survive in competitive markets; and provides a market base for the designing of whole systems of business action.

(Con'd)

### Organization and Executive Behavior

Has to do with the internal environment of business. It will consider the organization as a social system and assess the role of the executive in this action setting.

### Fiscal Administration

Combines the fields of finance and accounting which are so frequently undiscernible in business. Emphasis will not be on ledger entry accounting but on such topics as management aspects of operating statements, balance sheets, flow of funds through the enterprise and capital accounts.

### Management of Human Resources

Assesses human resources in an integrated continuum. Designed to replace separate offerings such as personnel management, labor relations, and collective bargaining. The course will stress management considerations.

### Analysis of Production Systems

Will consider various kinds of production systems such as process, job shop and line production. While the course will treat production scheduling, control and related matters, these will be subservient to an understanding of the basic kinds of productive organizations and facilities.

### Materials and Product Logistics

To consider materials procurement or purchasing and the physical distribution of goods--the transportation, warehousing, movement through transfer cities, and optimum location of outlets. This is an evolving area of business related to optimum movement of products and supplies through time and space, and this course will be designed to preserve the consistency of the basic view of the firm as an operating system.

### Sales and Cost Forecasting

Will recognize forecasting as the basic tool of corporate planning and give consideration to the effect of forecast volumes in operating costs. This course will continue the accounting part of fiscal administration and will replace the traditional course in cost accounting.

### Business Research Methods

This course recognizes that business problems increasingly will be solved through research and that the executive will be called upon to interpret research reports and pass judgment on findings. This will be built upon the scientific method established in the liberal studies program, using mathematics and statistics as tool subjects.

### Social Responsibilities of the Businessman

Recognizing the corporation as one of the dominant social institutions of our times, this course will assess the role and requirements for enlightened corporate citizenship. It presupposes that if business fails in its social responsibilities, society will choose among the many alternatives in the area of social legislation.

### Concentration of Economic Power

Designed to deal with the economic impact of power concentration, including business, labor and government.

### International Business

Recognizing the growing participation of American Business in foreign settings, this course will deal with the subject from an administrative view, seeking optimum programs for overseas opportunities. It will vary substantially from the more traditional courses in international trade taught from an economist's point of view.

## Business Policy

This course will focus the student's attention during the last term on case problems from all areas of business. In this course, he will be expected to bring to bear his total accumulation of knowledge on action decision of strategic importance to the firm.

## BUSINESS ADMINISTRATION

### FRESHMAN YEAR

#### 1st Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

#### 2nd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

#### 3rd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Social Science or  
Chemistry  
Foreign Language or  
Mathematics

### SOPHOMORE YEAR

History & Philosophy  
of Science  
Foreign Language or  
Mathematics  
The American Economy

History & Philosophy  
of Science  
Foreign Language or  
Mathematics  
Managerial Economics  
Elective\*

History & Philosophy  
of Science  
Foreign Language or  
Mathematics  
Legal & Political En-  
vironment of Business

### JUNIOR YEAR

Foreign Studies  
Market Enterprise  
Organization &  
Executive Behavior

Foreign Studies  
Fiscal Administration  
Management of Human  
Resources  
Elective

Foreign Studies  
Analysis of Production  
Systems  
Materials & Product  
Logistics

### SENIOR YEAR

Sales & Cost Forecasting  
Business Research Methods  
Major Elective

Social Responsibilities  
of the Businessman  
Concentration of Economic  
Power  
International Business  
Elective

Great Issues  
Business Policy  
Elective or Independent  
Study

\* The course in Consumer and Purchase Behavior will be recommended at this point, although it may be taken as an elective during any of the last nine terms.

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## ENGINEERING SCIENCE

The engineering science curriculum for Michigan State University Oakland is a response to the needs of the modern world of science and technology for engineers who are broadly and scientifically educated. Departing from the traditional engineering curriculums and organizations, the program has been designed to fulfill the need for the engineer capable of employing the viewpoints and knowledge of physical science, who can take full advantage of the power of mathematics, and who has also received a breadth of training in cultural areas unusual in the engineering graduates of today.

The engineering program is primarily a three-year orientation to engineering science, followed by a year of specialized engineering application and terminating with a Bachelor of Science (Engineering Science) degree.

The technical work of the first two years is devoted to chemistry and physics. In the third year preliminary studies in the engineering field are undertaken. Appropriate work in mathematics continues during all three years. Topics in the social sciences and from the fields of the liberal studies will also be carried throughout the four years.

The specialized engineering work of the fourth year will build upon the earlier engineering sciences and will allow the student to begin to learn how to utilize his basic knowledge and mathematics in the study of engineering problems and the engineering methods applicable to their solution.

Students may choose engineering courses during the senior year from two major groups. One group will deal primarily with electronics, circuits, electro-magnetics, and system studies. The second will include work in properties of materials, heat transfer and mechanics.

### FRESHMAN YEAR

#### 1st Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Mathematics  
Chemistry

#### 2nd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Mathematics  
Chemistry

#### 3rd Quarter

History & Development of  
Western Civilization  
Composition & Literature  
Mathematics  
Chemistry

### SOPHOMORE YEAR

Physics  
Mathematics  
Social Science

Physics  
Mathematics  
Social Science  
Elective

Physics  
Mathematics  
History & Philosophy of  
Science

### JUNIOR YEAR

Physics  
Mathematics  
Engineering

Foreign Studies  
Mathematics  
Engineering

Foreign Studies  
Mathematics  
Engineering  
Elective

(con'd)

SENIOR YEAR

Engineering  
Engineering  
Engineering

Engineering  
Engineering  
Engineering

Engineering  
Engineering  
Elective

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MATHEMATICS AT MICHIGAN STATE UNIVERSITY OAKLAND

The mathematics program at Michigan State University Oakland will be designed to accommodate two classes of students, engineering science students and students who elect to substitute mathematics for the foreign language requirement. It will therefore feature two two-year sequences which can be described briefly as follows:

The science sequence will be devoted mainly to the study of the calculus and its applications. This departs from the traditional program which begins with college algebra, but it is expected that the students entering this sequence will have had a thorough exposure to mathematics in high school.

The non-science sequence would well be labeled "an introduction to modern mathematics." It will be designed to help the students understand the aims and limitations of mathematics (and statistics) as well as some of the methods and applications. This, together with the course "The History and Philosophy of Science", should provide the student with an appreciation of the role of mathematics in our culture.

The non-science sequence is described in Table I, which follows, while the science sequence is shown in Table II.

TABLE I

Mathematics Curriculum I  
(Non-Science Majors)

Terms 1, 2, 3	<u>Functions of a single Variable.</u> (A study of the elementary functions of a single variable through the methods of algebra, coordinate geometry, and calculus.)  <ol style="list-style-type: none"><li>1. Sets and functions, coordinate systems, and graphs</li><li>2. Polynomial, rational, and algebraic functions</li><li>3. Circular functions</li><li>4. Logarithmic and exponential functions</li></ol>
Term 4	<u>Statistics</u>  <ol style="list-style-type: none"><li>1. Measurements and grouping of data</li><li>2. Measures of central tendency and dispersion</li><li>3. Sampling theory</li><li>4. Tests of hypotheses</li></ol>
Terms 5, 6	<u>Probability theory and mathematical models.</u>  <ol style="list-style-type: none"><li>1. Partitions of sets</li><li>2. Probability theory</li><li>3. Vectors and matrices</li><li>4. Convex sets and maxima and minima</li><li>5. Linear Programming</li></ol>

TABLE II

Mathematics Curriculum II  
(Science Majors)

Terms 1, 2, 3	Same as I
Terms 4, 5	Vectors and Matrices, multivariable functions
Term 6	Series
Term 7	Differential equations and Laplace transforms
Term 8	Partial differential equations and special functions
Term 9	Functions of a complex variable

