MSUO CURRICULUM COMMITTEE REPORT

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I. Introduction -- The Committee and Its Objectives

The MSUO Curriculum Committee was established in June, 1957, for the purpose of developing courses and curricula in general studies, business administration, teacher training, engineering and science and arts. The Committee met several times during the summer of 1957 under the chairmanship of Mr. Hamilton and weekly during the fall term under the chairmanship of Mr. Blackman. Members of the Committee were Vice President Thomas H. Hamilton; Walter Adams, Business and Public Service; Edward B. Blackman, Basic College; Cole Brembeck, Education; Harold Dahnke, Registrar's Office; Richard Schlegel, Science and Arts; Lawrence W. Von Tersch, Engineering.

The Committee made no effort to deal with detailed matters of course content, syllabi, text books, and the like. These will properly be the responsibility of the Oakland faculty. Nevertheless the Committee sought to be as precise and specific as possible in developing the requirements and the courses of the several curricula.

II. Minimum Degree Requirements

The Committee defined a normal student load as four courses per term. The total required for graduation is thus forty-eight courses with a "C" average or better. The student must satisfy the requirements in general education as well as those in the curriculum in which he majors.

III. Subcollegiate Instruction

The Oakland faculty will offer no courses of a subcollegiate character. Nor will the faculty teach either a traditional freshman English course or a general education communications course. Instead:

A. It will be assumed that only those students will be admitted who have demonstrated in their high school record that they have the

PROPER TRAINING AND ABILITY TO DO COLLEGE-LEVEL WORK.

B. NEVERTHELESS, SOME STUDENTS INADEQUATELY TRAINED IN ONE OR MORE OF THE BASIC TOOLS OF LEARNING WILL INEVITABLY APPEAR IN EVERY FRESHMAN CLASS. AN EFFORT WILL BE MADE TO IDENTIFY SUCH STUDENTS AS EARLY AS POSSIBLE IN THEIR COLLEGE CAREER, AND FOR THEM THE OAKLAND ADMINISTRATION WILL MAKE AVAILABLE HIGH SCHOOL COURSES TAUGHT BY HIGH SCHOOL TEACHERS RECRUITED FOR THIS PURPOSE ON AN AFTER-SCHOOL SCHEDULE. NO STUDENT WILL BE REQUIRED TO TAKE ANY REMEDIAL COURSE. THOSE WHO DO CHOOSE TO TAKE SUCH COURSES WILL BE REQUIRED TO PAY $15.00 PER TERM PER COURSE. THIS FEE SHOULD BE ADEQUATE TO DEFRAY THE COST OF INSTRUCTION.

C. THE FACULTY WILL PLACE STRONG EMPHASIS ON WRITING IN ALL THE GENERAL EDUCATION COURSES, AND THE QUALITY OF A STUDENT'S WRITING WILL BE EVALUATED IN GRADE DETERMINATION. MOREOVER, THE CULTURAL HISTORY COURSE IS PROVIDED WITH SUFFICIENT TIME (FIVE TERMS) AND WILL BE SO DESIGNED AS TO PROVIDE SPECIAL OPPORTUNITIES FOR WRITTEN AND ORAL REPORTS ON THE CONTENT OF THE COURSE.

IV. GENERAL EDUCATION CURRICULUM

THERE ARE FIFTEEN COURSES IN GENERAL EDUCATION WHICH, WITH THE EXCEPTIONS NOTED BELOW, ARE REQUIRED OF ALL STUDENTS IN ALL CURRICULA. THE GENERAL EDUCATION COURSES ARE LAID OUT IN SCHEDULE I.

EXCEPTIONS TO THE GENERAL EDUCATION REQUIREMENTS:

A. STUDENTS WHO TAKE TWO OR MORE TERMS OF EITHER PHYSICS OR CHEMISTRY WILL BE EXEMPT FROM PHYSICAL SCIENCE.

B. STUDENTS WHO TAKE TWO OR MORE TERMS OF BIOLOGY WILL BE EXEMPT FROM BIOLOGICAL SCIENCE.

C. STUDENTS TAKING A TERM OR MORE OF MATHEMATICS WILL BE EXEMPT FROM THE COURSE IN MATHEMATICAL REASONING.

A BRIEF DESCRIPTION OF THE GENERAL EDUCATION COURSES:

A. CULTURAL HISTORY -- A FIVE-TERM COURSE IN WESTERN CULTURE, HISTORICAL AND CHRONOLOGICAL; AN INTEGRATION OF LITERATURE, ART, PHILOSOPHY, AND RELIGION; READING ASSIGNMENTS PRIMARILY IN "THE GREAT BOOKS"; PARTICULAR EMPHASIS ON WRITTEN AND ORAL REPORTS BASED ON COURSE CONTENT.

B. PHYSICAL SCIENCE -- A TWO-TERM INTEGRATED COURSE IN THE PHYSICAL SCIENCES; ATOMIC STRUCTURE OF MATTER, PERIODIC TABLE, INORGANIC AND ORGANIC CHEMICAL REACTIONS; INERTIA, MOTION, FORCE, AND ENERGY; THE ELEMENTARY PARTICLES, RADIATION AND NUCLEAR PHYSICS; THE EARTH AND THE SOLAR SYSTEM; THE ASTRONOMICAL UNIVERSE.

C. BIOLOGICAL SCIENCE -- A TWO-TERM INTEGRATED COURSE IN THE BIOLOGICAL SCIENCES; PLANT AND ANIMAL WORLD; THE CELL AND ITS PHYSICAL-CHEMICAL PROCESSES; THE EVOLUTIONARY PROCESS; CHROMOSOMES AND GENES; HUMAN PHYSIOLOGY; NUTRITION AND HYGIENE.

D. MATHEMATICAL REASONING -- A ONE-TERM COURSE FOR NON-SCIENCE STUDENTS; THE NUMBER SYSTEM: EXEMPLIFICATION IN ELEMENTARY ARITHMETICAL OPERATIONS; THE NATURE OF GEOMETRY AND GEOMETRICAL RELATIONS; ELEMENTARY ALGEBRAIC EQUATIONS; FIRST IDEAS OF TRIGONOMETRY, ANALYTIC GEOMETRY, AND THE CALCULUS; POSSIBILITIES AND LIMITATIONS OF MATHEMATICS.

E. BEHAVIORAL SCIENCE -- A THREE-TERM INTEGRATED COURSE IN THE BEHAVIORAL SCIENCES; A PRIMARY EMPHASIS ON COMPARATIVE CULTURES WITH DATA DRAWN FROM ANTHROPOLOGY AND SOCIOLOGY; A SECONDARY

EMPHASIS ON THE FORMATION OF PERSONALITY AND THE PROCESS OF SOCIALIZATION WITH DATA DRAWN FROM SOCIAL PSYCHOLOGY. SIGNIFICANT MATERIALS FROM POLITICAL SCIENCE AND ECONOMICS MAY BE INCLUDED TO THE EXTENT THAT THEY CONTRIBUTE TO THE MAJOR OBJECTIVES OF THE COURSE.

F. GREAT ISSUES -- A TWO-TERM, SENIOR-LEVEL CAPSTONE COURSE; GREAT ISSUES OF THE PRESENT CENTURY; SPECIAL ATTENTION DEVOTED TO THOSE ISSUES WITH A PERSISTENT PAST AND AN INSISTENT PRESENT; THE ISSUES TO BE DRAWN, AS APPROPRIATE, FROM ALL AREAS OF KNOWLEDGE.

V. BUSINESS ADMINISTRATION CURRICULUM

A STUDENT MAJORING IN BUSINESS ADMINISTRATION WILL BE REQUIRED TO TAKE THE GENERAL AND SPECIALIZED COURSES LAID OUT IN SCHEDULE II.

THE PRINCIPLES OF ADMINISTRATION COURSE WILL COVER BASIC PRINCIPLES OF ADMINISTRATION COMMON TO EDUCATION, GOVERNMENT, AND BUSINESS. IT WILL HAVE TO BE DEVELOPED AS A NEW COURSE; THERE IS NO EQUIVALENT COURSE ON THE EAST LANSING CAMPUS.

THE OTHER COURSES IN SCHEDULE II HAVE THE FOLLOWING EQUIVALENTS ON THE EAST LANSING CAMPUS. THIS IS NOT TO SUGGEST THAT THE COURSES AT OAKLAND MUST BE THE SAME AS THE ONES AT EAST LANSING. THE EQUIVALENTS ARE RECORDED ONLY FOR THE PURPOSE OF INDICATING BRIEFLY THE GENERAL CHARACTER OF THE COURSES AS ENVISAGED BY THE COMMITTEE.

A. BUSINESS AND ECONOMIC HISTORY: HISTORY 241A, 241B

B. STATISTICS: STATISTICS 301

C. PRINCIPLES OF ECONOMICS: ECONOMICS 200, 201, 202

D. ACCOUNTING: ACCOUNTING 210, 211, 212

E. General Psychology: Psychology 201

F. Psychology of Business: Psychology 260

G. Finance: General Business 318, 319

H. Money and Banking: Economics 318

I. Labor Economics: Economics 305

J. Business Law: General Business 442

K. Marketing: General Business 320, 322

L. Management: General Business 302, 303

M. Government and Business: Economics 444

N. Political Science: One course in American government

VI. Teacher Education Curriculum

The teacher education curriculum provides:

A. A common basic program of professional courses for both elementary and secondary teacher candidates.

B. A methods course to be carried concurrently with the internship in the senior year; the internship is thus the equivalent of three on-campus courses.

C. The inclusion of general education credits, wherever appropriate, as part of major and minor fields.

The student preparing for an elementary teaching certificate must pass twelve courses in education (of which the internship constitutes three); and he must complete a major of nine courses and two minors of six courses each, or four minors of six courses each.

The student preparing for a secondary teaching certificate must pass ten courses in education (of which the internship constitutes three); and he must complete one teaching major of nine courses and two teaching minors of

SIX COURSES EACH.

THE TEACHER EDUCATION CURRICULUM, FOR BOTH ELEMENTARY AND SECONDARY MAJORS, IS LAID OUT IN SCHEDULE III.

THE PROFESSIONAL COURSES MAY BE DESCRIBED BRIEFLY AS FOLLOWS:

A. HUMAN DEVELOPMENT -- MENTAL, EMOTIONAL, PHYSICAL AND PERSONALITY DEVELOPMENT OF THE HUMAN ORGANISM RELATED TO PROBLEMS OF SCHOOL LEARNING.

B. SCHOOL AND COMMUNITY -- THE SCHOOL AS A SOCIAL INSTITUTION; THE TEACHER AS A MEMBER OF THE PROFESSION AND AS A REPRESENTATIVE OF THE COMMUNITY; THE SOCIETY AS BASIC ORIENTATION FOR BOTH THE TEACHER AND THE SCHOOL.

C. ELEMENTARY SCHOOL METHODS I -- LANGUAGE ARTS AND THE SOCIAL SCIENCES: THE METHODS OF TEACHING THE LANGUAGE ARTS USING THE CONTENT MATERIAL OF THE SOCIAL STUDIES.

D. ELEMENTARY SCHOOL METHODS II-- SCIENCE AND ARITHMETIC: THE CONTENT MATERIALS AND METHODS IN SCIENCE AND ARITHMETIC IN THE ELEMENTARY SCHOOL.

E. INTERNSHIP -- OBSERVATION AND PARTICIPATION IN TEACHING IN SCHOOLS OF THE OAKLAND AREA.

F. INTERNSHIP - METHODS -- SECONDARY CANDIDATES WILL ENROLL IN THE METHODS COURSE APPROPRIATE TO THE MAJOR TEACHING AREA. ELEMENTARY CANDIDATES WILL ENROLL IN A READING METHODS COURSE.

G. THE SPACES MARKED "X" IN SCHEDULE III PROVIDE ADEQUATE TIME FOR ALL REQUIRED MAJOR AND MINOR COURSES.

VII. THE ENGINEERING CURRICULUM

THE ENGINEERING CURRICULUM PROVIDES FOR TWO ALTERNATIVE MAJORS: ELEC-

TRICAL ENGINEERING AND MECHANICAL ENGINEERING.

ALL ENGINEERING MAJORS MUST TAKE:

A. THE REQUIRED GENERAL EDUCATION COURSES

B. THE FOUR ENGINEERING COMMON COURSES

C. THE TEN MATHEMATICS COURSES

D. FIFTEEN COURSES IN THE MAJOR (ELECTRICAL ENGINEERING OR MECHANICAL ENGINEERING)

E. FOUR COURSES IN A SINGLE MINOR: PHYSICS, BUSINESS, MECHANICAL ENGINEERING, OR ELECTRICAL ENGINEERING

THE COURSES IN THE ENGINEERING CURRICULUM ARE LAID OUT IN SCHEDULE IV.

THE COURSE DESCRIPTIONS ARE AS FOLLOWS:

A. ENGINEERING COMMON I -- ENGINEERING COMMUNICATION: SKETCHING, ILLUSTRATING, DATA PRESENTATION.

B. ENGINEERING COMMON II -- STATICS

C. ENGINEERING COMMON III -- DYNAMICS

D. ENGINEERING COMMON IV -- SYSTEMS ENGINEERING: APPLICATION OF FUNDAMENTAL PRINCIPLES TO ENGINEERING PROBLEMS COMMON TO ALL ENGINEERING DISCIPLINES.

E. MATHEMATICS I -- ALGEBRA

F. MATHEMATICS II -- ANALYTIC GEOMETRY

G. MATHEMATICS III, IV, V -- CALCULUS

H. MATHEMATICS VI -- DIFFERENTIAL EQUATIONS

I. MATHEMATICS VII -- ENGINEERING MATHEMATICS: LAPLACE TRANSFORM, PARTIAL DIFFERENTIAL EQUATIONS, VECTOR ANALYSIS.

J. MATHEMATICS VIII -- ENGINEERING MATHEMATICS: THEORY OF EQUATIONS, DETERMINANTS, MATRICES, SYSTEMS OF LINEAR AND DIFFERENTIAL EQUATIONS

K. MATHEMATICS IX -- ENGINEERING MATHEMATICS: COMPLEX NUMBER SYSTEMS, SERIES, MAPPING

L. MATHEMATICS X -- ENGINEERING MATHEMATICS: NUMERICAL ANALYSIS, STATISTICAL METHODS

M. ELECTRICAL ENGINEERING MAJOR

I, II -- NETWORKS, STUDY OF RESISTIVE SYSTEMS

III, IV, V -- NETWORKS, GENERAL RLC SYSTEMS WITH ARBITRARY DRIVING FUNCTIONS

VI, VII -- ELECTRIC AND MAGNETIC FIELDS

VIII -- ELECTRONICS

IX, X, XI -- DYNAMIC NETWORKS

XII -- ELECTRONICS

XIII -- ELECTRIC AND MAGNETIC FIELDS

XIV -- ELECTRONICS

XV -- ELECTRIC AND MAGNETIC FIELDS

N. MECHANICAL ENGINEERING MAJOR

I, II -- PROPERTIES OF ENGINEERING MATERIALS

III, IV, V -- HEAT TRANSFER

VI, VII, VIII -- MECHANICS

IX, X, XI -- ENGINEERING MATERIALS

XII, XIII, XIV -- HEAT TRANSFER

XV -- MECHANICS

VIII. THE SCIENCE AND ARTS CURRICULUM

CANDIDATES FOR A BACHELOR'S DEGREE IN THE SCIENCE AND ARTS CURRICULUM MUST COMPLETE THE REQUIREMENTS IN GENERAL EDUCATION AND A MAJOR, CONSISTING OF TWELVE COURSES WITH A GRADE OF "C" OR HIGHER, IN ONE FIELD OF STUDY. THERE ARE NO REQUIREMENTS WITH RESPECT TO "MINOR" FIELDS; AND GENERAL EDUCATION COURSES, WHERE APPROPRIATE, MAY BE COUNTED TOWARD THE

MAJOR.

EVERY CANDIDATE MUST COMPLETE ONE YEAR (THREE COURSES) IN EITHER A FOREIGN LANGUAGE OR IN FOREIGN STUDIES.

SCHEDULE V IS A SAMPLE SCHEDULE FOR A STUDENT MAJORING IN A NON-SCIENCE FIELD. SCHEDULE VI IS A SAMPLE SCHEDULE FOR A STUDENT MAJORING IN A SCIENCE (E.G. PHYSICS).

THE FOREIGN STUDIES COURSE -- THE CULTURAL AND POLITICAL LIFE OF THE FAR EAST (INDIA, PAKISTAN, CHINA, JAPAN), THE NEAR EAST (THE MOSLEM WORLD AND ISRAEL), AND SELECTED AREAS OF AFRICA.

SCHEDULE I

THE GENERAL EDUCATION CURRICULUM

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	PHYSICAL SCIENCE I	PHYSICAL SCIENCE II	BIOLOGICAL SCIENCE I
	MATHEMATICAL REASONING		
II	BIOLOGICAL SCIENCE II	CULTURAL HISTORY IV	CULTURAL HISTORY V
	BEHAVIORAL SCIENCE I	BEHAVIORAL SCIENCE II	BEHAVIORAL SCIENCE III
III			
IV		GREAT ISSUES I	GREAT ISSUES II

SCHEDULE II

THE BUSINESS ADMINISTRATION CURRICULUM

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	PHYSICAL SCIENCE I	PHYSICAL SCIENCE II	BIOLOGICAL SCIENCE I
	MATHEMATICAL REASONING	ELECTIVE	ELECTIVE
	PRINCIPLES OF ADMINISTRATION	BUSINESS AND ECONOMIC HISTORY I	BUSINESS AND ECONOMIC HISTORY II
II	BIOLOGICAL SCIENCE II	CULTURAL HISTORY IV	CULTURAL HISTORY V
	BEHAVIORAL SCIENCE I	BEHAVIORAL SCIENCE II	BEHAVIORAL SCIENCE III
	STATISTICS	PRINCIPLES OF ECON. I	PRINCIPLES OF ECON. II
	ACCOUNTING I	ACCOUNTING II	ACCOUNTING III
III	GENERAL PSYCHOLOGY	FINANCE I	FINANCE II
	MONEY AND BANKING	LABOR ECONOMICS	BUSINESS LAW
	MARKETING I	MARKETING II	PSYCHOLOGY OF BUSINESS
	MANAGEMENT I	MANAGEMENT II	ELECTIVE
IV	ELECTIVE	GREAT ISSUES I	GREAT ISSUES II
	ELECTIVE	GOVERNMENT AND BUSINESS	BUSINESS POLICY
	POLITICAL SCIENCE	ELECTIVE	ELECTIVE
	ELECTIVE	ELECTIVE	ELECTIVE

SCHEDULE III

TEACHER EDUCATION CURRICULUM

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	PHYSICAL SCIENCE I	PHYSICAL SCIENCE II	BIOLOGICAL SCIENCE I
	MATHEMATICAL REASONING	X	X
	X	X	X
II	BIOLOGICAL SCIENCE II	CULTURAL HISTORY IV	CULTURAL HISTORY V
	BEHAVIORAL SCIENCE I	BEHAVICRAL SCIENCE II	BEHAVIORAL SCIENCE III
	HUMAN DEVELOPMENT I	HUMAN DEVELOPMENT II	HUMAN DEVELOPMENT III
	X	X	X
III	SCHOOL AND COMMUNITY I	SCHOOL AND COMMUNITY II	SCHOOL AND COMMUNITY III
	X	X	ELEMENTARY SCHOOL METHODS I
	X	X	X
	X	X	X
IV	INTERNSHIP	GREAT ISSUES I	GREAT ISSUES II
	INTERNSHIP	EL. SCHOOL METHODS II	X
	INTERNSHIP	X	X
	INTERNSHIP-METHODS	X	X

SCHEDULE IV

THE ENGINEERING CURRICULUM

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	CHEMISTRY I	CHEMISTRY II	ELECTIVE
	ENGINEERING COMMON I	BIOLOGICAL SCI. I	BIOLOGICAL SCI. II
	MATHEMATICS I	MATHEMATICS II	MATHEMATICS III
II	CULTURAL HISTORY IV	CULTURAL HISTORY V	ENGR. COMMON III
	BEHAVIORAL SCIENCE I	BEHAVIORAL SCIENCE II	BEHAVIORAL SCIENCE III
	ENGR. COMMON II	ENGR. MAJOR I	ENGR. MAJOR II
	MATHEMATICS IV	MATHEMATICS V	MATHEMATICS VI
III	ENGR. MAJOR III	ENGR. MAJOR IV	ENGR. MAJOR V
	ENGR. MAJOR VI	ENGR. MAJOR VII	ENGR. MAJOR VIII
	MINOR I	MINOR II	MINOR III
	MATHEMATICS VII	MATHEMATICS VIII	MATHEMATICS IX
IV	MINOR IV	GREAT ISSUES I	GREAT ISSUES II
	ENGR. MAJOR-IX	ENGR. MAJOR X	ENGR. MAJOR XI
	ENGR. MAJOR XII	ENGR. MAJOR XIII	ENGR. MAJOR XIV
	MATHEMATICS X	ENGR. COMMON IV	ENGR. MAJOR XV

SCHEDULE V

SCIENCE AND ARTS CURRICULUM FOR NON-SCIENCE MAJOR

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	PHYSICAL SCIENCE I	PHYSICAL SCIENCE II	BIOLOGICAL SCIENCE I
	MATHEMATICAL REASONING	ELECTIVE	ELECTIVE
	ELECTIVE	ELECTIVE	ELECTIVE
II	BIOLOGICAL SCIENCE II	CULTURAL HISTORY IV	CULTURAL HISTORY V
	BEHAVIOR, SCIENCE I	BEHAVIORAL SCIENCE II	BEHAVIORAL SCIENCE III
	FOREIGN LANGUAGE OR FOREIGN STUDIES	FOREIGN LANGUAGE OR FOREIGN STUDIES	FOREIGN LANGUAGE OR FOREIGN STUDIES
	MAJOR	MAJOR	MAJOR
III	MAJOR	MAJOR	MAJOR
	MAJOR	MAJOR	MAJOR
	ELECTIVE	ELECTIVE	ELECTIVE
	ELECTIVE	ELECTIVE	ELECTIVE
IV	ELECTIVE	GREAT ISSUES I	GREAT ISSUES II
	MAJOR	MAJOR	MAJOR
	ELECTIVE	ELECTIVE	ELECTIVE
	ELECTIVE	ELECTIVE	ELECTIVE

SCHEDULE VI

SCIENCE AND ARTS CURRICULUM FOR SCIENCE MAJOR (PHYSICS)

I	CULTURAL HISTORY I	CULTURAL HISTORY II	CULTURAL HISTORY III
	CHEMISTRY I	CHEMISTRY II	BIOLOGICAL SCIENCE I
	MATHEMATICS I	MATHEMATICS II	MATHEMATICS III
	ELECTIVE	ELECTIVE	ELECTIVE
II	BIOLOGICAL SCIENCE II	CULTURAL HISTORY IV	CULTURAL HISTORY V
	BEHAVIORAL SCIENCE I	BEHAVIORAL SCIENCE II	BEHAVIORAL SCIENCE III
	MATHEMATICS IV	MATHEMATICS V	MATHEMATICS VI
	PHYSICS I	PHYSICS II	PHYSICS III
III	FOREIGN LANGUAGE OR FOREIGN STUDIES	FOREIGN LANGUAGE OR FOREIGN STUDIES	FOREIGN LANGUAGE OR FOREIGN STUDIES
	PHYSICS IV	PHYSICS V	PHYSICS VI
	MATHEMATICS VII	MATHEMATICS VIII	MATHEMATICS IX
	ELECTIVE	ELECTIVE	ELECTIVE
IV	ELECTIVE	GREAT ISSUES I	GREAT ISSUES II
	PHYSICS VII	PHYSICS VIII	PHYSICS IX
	PHYSICS X	PHYSICS XI	PHYSICS XII
	ELECTIVE	ELECTIVE	ELECTIVE