

Earl Edgar
Vice President Academic

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JUN 23 1978

DR. EARL E. EDGAR
VICE PRESIDENT
FOR ACADEMIC AFFAIRS

MINUTES
ACADEMIC SENATE
June 2, 1978

ATTENDANCE: (See attached attendance roster.)

The meeting was called to order at 4:05 by Dr. Jean Kelty, chairperson of the Senate, with a quorum present.

APPROVAL OF MINUTES OF MAY 26, 1978 SENATE MEETING

The minutes were not ready for distribution. They will be presented for approval at the Fall meeting.

REPORTS OF SENATE COMMITTEES

Charter and ByLaws Committee - No report.

Executive Committee - Dr. Kelty reported.

The committee appointments are complete. The committees have been asked to meet and elect chairmen so that all committees will be constituted before the end of the current quarter. The procedure for committee appointment was by random choice. All those currently serving on a committee and asking to remain on the committee were put back on the committee. The Executive Committee then moved to their first choice of the individuals and selection was made by random number. The highest random numbers were put on the committee as outlined in the Executive Committee minutes. Appointments to the Advisory Computer Committee are not complete because the Executive Committee was waiting until the Senate completed all business on that matter. These appointments should be made soon. A list of committee members is attached to the May 26 minutes.

Dr. Behen's Appreciation Statement

Dr. Kelty then read a statement from Dr. David Behen expressing his appreciation to the Senate for the honor recently bestowed upon him - that being named honorary member of the Senate. (Statement attached.)

Elections and Balloting Committee - Dr. Secrist reported. Dr. Jean Kelty has been re-elected chairperson of the Senate. Dr. Donald Hovey has been re-elected Vice Chairperson. New members of the Charter and ByLaws Committee are Everett Abram, Gratia Murphy, and Daniel O'Neill.

Lawrence Haims replaced Glorianne Leck as Senate representative from Foundations of Education, John Van Norman will replace Friedrich Koknat from Chemistry in the Fall. On the Senate Executive Committee, Edward Largent is replacing David Robinson. The Engineering and Education schools are in the process of electing their representatives to the Senate Executive Committee.

REPORTS OF OTHER SENATE COMMITTEES

Academic Affairs Committee - 778-33 Recalculation of GPA

Dr. Kelty asked that debate be limited due to the fact that this topic was already discussed at length on the Senate floor.

Dr. Hill reported. The Academic Affairs Committee has revised the motion somewhat from the original CAST proposal. The Committee suggests that clarification of catalog language is also needed.

Motion to approve recalculation of GPA

Failed

Dr. Hill moved approval of the recalculation of GPA. Second by Dr. Largent.

Discussion followed. Dr. Yozwiak stated that he stands in opposition to the motion. A brief study was made in Arts and Sciences on 437 cases. The breakdown for honors would affect honor status only minimally. If this motion were passed it would only eliminate three petitions.

Dean Sutton spoke in favor of the motion because it is a step in the right direction. The recalculation concept was a gift to keep students in the University during a period of low enrollment. It is adverse to academic standards and not in the best interest of the University to publish a false grade point average. This will be a step towards academic honesty.

Question called on the motion. Vote: 34 for, 36 against. Motion failed.

778-34 Labor Studies Program Dr. Hill reported that Vice President Edgar issued a statement on October 20, 1977 - "It is the policy of the university that all two-year associate degree programs are to be offered through the College of Applied Science and Technology."

Motion to approve Labor Studies Technology Program

Carried

Dr. Hill moved to approve the Labor Studies Technology Program with the three recommendations as listed in the agenda. Second by Dr. Jenkins.

There are three conditions which were discussed with Dean Paraska, one of which he put in writing. (Attached)

The content of the cross-listed courses (Labor Studies 515 and 530) including the textbooks to be used shall be mutually agreed upon by CAST and the Economics Department and shall be offered in a manner consistent with the standard of performance for teaching reflected in the YSU Faculty agreement and any change, alteration, or revision in the courses indicated, or in their academic content(s) or any substitution of another course or courses in the Labor Studies Program curriculum in whole or in part therefore, shall require the prior written mutual agreement of CAST and the Department of Economics.

It was noted that these courses have not gone through the Curriculum Committee; the Senate is just approving the program.

Amendment to add statement to item 2

Carried

Dr. Niemi moved to add "to be taught exclusively by the Economics Department" to statement two. Amendment received a second. Question called on the amendment. Amendment carried.

Amendment to add statement to item 1

Carried

Dr. Beelen moved to amend item one to add "to be taught exclusively by the History Department. Amendment received a second. Discussion followed. Points discussed included: courses in a discipline should be taught by persons professionally trained in that discipline; there was a verbal agreement between CAST and History that the coordinator of the program would teach the course the first time and then the teacher of the course would be mutually agreed upon. Question called. Amendment carried.

The motion as amended was then discussed. Dean Paraska reviewed the University policy that all two-year programs are to be located in CAST, that existing courses are to be utilized when available, but that courses to be developed are to be offered in CAST and suggested the Senate defeat the proposal and YSU not offer a Labor Studies Program. The question was raised about the status of a four-year program if one is developed. Dr. Beaubien noted that the overview of the Labor Studies Program should be taught by the school responsible for the program. A clarification of Dean Paraska's position was requested. Dean Paraska responded by outlining the historical development that led to the Labor Studies proposal at YSU including being designated as one of the institutions to offer the program, formation of an advisory committee, conferences to reconcile differences with the History and Economics Departments. The program is needed but would like to see amendments stricken--with the amendments, he (Dean Paraska) finds it difficult to ask the Senate to support the motion.

Margaret Horvath then noted that the program needs basic courses taught in other departments. One gets the feeling that CAST and Arts and Sciences are at war. All two-year programs are run with input from community and must meet rigid state requirements. She would like to see more cooperation between schools.

Motion to refer back to committee

Failed

Dr. Koknat moved that the motion be referred back to committee. Motion received a second. It was noted that the Academic Affairs Committee has considered the program for over a year. Question called. Motion failed.

Vote on motion as amended

Carried

Question called on the motion as amended. Motion carried.

Academic Events Committee - Gail Hedrick reported. She moved to accept the recommendation of the Academic Events Committee as stated in the agenda. Second by Dr. Young.

Motion to delete sentence

Defeated

Dean Miller moved to delete "Ten distinguished professors, Watson award recipients, nine sabbatical research professors, faculty promotions." Second by Dr. Haims.

Motion to add and/or

No vote taken

Dr. Koknat moved to add "or" after "faculty dinner and" in the report. Second by Dr. Leck.

Motion to refer back to committee

Carried

Dr. Hovey moved that this matter be referred back to committee. Second by Dean Moore.

Question called on the motion to refer back to committee. Motion carried.

University Curriculum Committee - Dr. Steele reported.

Motion to accept report

No vote taken

Dr. Steele moved to accept the report on the courses for the Child Care Technology Program. Second by Horvath.

Motion to refer back to committee

Carried

Dr. Hotchkiss moved that this matter be referred back to committee. Motion received a second.

Discussion followed. The change in 707 in credit hours that "slipped through" one department did not slip through the other. This course is seldom taught by one of the departments involved. It appears that Home Economics is asking that a course in Psychology be stricken from the inventory. That was not the case. They are recommending that HE 707 remain crosslisted with Psychology 707.

The University Curriculum Committee does not have jurisdiction over how a department writes a syllabus.

Dr. Morrison - 707 is Psychology of Marriage and was taught by the Psychology Department until last year. Psychology of Marriage in Psychology is 4 credit hours and in Home Economics is 3 credit hours.

Question called on referring the matter back to committee. Motion carried.

Motion to move item 7 on the agenda

Carried

Dr. Singler moved that item 7 be moved up on the agenda. Second by Dr. Abrams. Motion carried.

Research Committee - Dr. Develitian reported. The report is attached to the May 19 agenda.

Q. Are research activities on record somewhere? A. No.

Motion to accept the report

Carried

Dr. Develitian moved to accept the report. Second by Moore.

Q. Would it be possible for the Senate Research Committee to develop a written policy? A. Perhaps.

A point of clarification was given - This refers to activities of the University Research Council and does not refer to the policies dealing with the types of research that goes on by individual faculty.

Question called on the motion. Motion carried.

MOTION FOR ADJOURNMENT

Carried

Dr. O'Neill moved that the meeting be adjourned. Motion received a second. Meeting adjourned 5:45.

ATTENDANCE
UNIVERSITY SENATE

June 2, 1978

ARTS AND SCIENCES

Everett Abram E. Abram
 George Beelen GB
 Frederick Blue Fred Blue
 Dean Brown Dean
 Irwin Cohen Irwin
 Janet DeBene Janet E. DeBene
 Gary Fry Gary Fry
 George Haushalter George Haushalter
 Sally Hotchkiss Sally Hotchkiss
 James Houck J. Houck
 William Jenkins W.D. Jenkins
 Jean Kelty Jean Kelty
 Ikram Khawaja Ikram Khawaja
 Friedrich Koknat Friedrich Koknat
 Leon Laitman Leon Laitman
 Brendan Minogue Brendan Minogue
 Gratia Murphy G. Murphy
 Esther Niemi E. Niemi
 Joan Philipp Joan Philipp
 Sidney Roberts Sidney Roberts
 William Shipman William Shipman
 Charles Singler Charles Singler
 Elizabeth Staudt Elizabeth Staudt
 Christopher Sweeney Christopher Sweeney
 Ronald Tabak Ronald Tabak
 Allen Viehmeyer Allen Viehmeyer
 Warren Young Warren Young

BUSINESS ADMINISTRATION

Ranger Curran Ranger Curran
 Terry Deiderick Terry Deiderick
 William Flad William Flad
 Inez Gross Inez Gross
 Donald Hovey Donald Hovey
 Mervin Kohn Mervin Kohn
 Donald Mathews Donald Mathews
 William Petrych William Petrych
 Raymond Shuster Raymond Shuster

SCHOOL OF EDUCATION

Robert Ameduri Robert Ameduri
 Robert DiGiulio Robert DiGiulio
 Fred Feitler Fred Feitler
 Florianne Leck Florianne Leck
 Gerald Richards Gerald Richards
 Charles Smith Charles Smith
 James Steele James Steele

SCHOOL OF ENGINEERING

Jack Bakos Jack Bakos
 Wade Driscoll Wade Driscoll
 Floyd Morris Floyd Morris
 Philip Munro Philip Munro
 John Ritter John Ritter
 Samuel Skarota Samuel Skarota
 Leslie Szirmai Leslie Szirmai

FINE AND PERFORMING ARTS

Donald Byo Donald Byo
 Darla Funk Darla Funk
 Elaine Juhasz Elaine Juhasz
 Joseph Lapinski Joseph Lapinski
 Edward Largent Edward Largent
 Daniel O'Neill Daniel O'Neill
 David Robinson David Robinson
 Michael Walusis Michael Walusis
 Louis Zona Louis Zona

APPLIED SCIENCE AND TECHNOLOGY

William Barsch William Barsch
 Mary Beaubien Mary Beaubien
 Ronald Ciminero Ronald Ciminero
 James Conser James Conser
 Barbara Erickson Barbara Erickson
 Margaret Horvath Margaret Horvath
 Dorothy Kennedy Dorothy Kennedy
 Victor Richley Victor Richley
 Mary Sebestyen Mary Sebestyen
 Hillary Soller Hillary Soller

ADMINISTRATIVE

Taylor Alderman Taylor Alderman
 William Binning William Binning
 David Cliness David Cliness
 Lawrence Cummings Lawrence Cummings
 Earl Edgar Earl Edgar
 Charles McBriarty Charles McBriarty
 William McGraw William McGraw
 Robert Miller Robert Miller
 Arnold Moore Arnold Moore
 Nicholas Paraska Nicholas Paraska
 Leon Rand Leon Rand
 Edmund Salata Edmund Salata
 James Scriven James Scriven
 George Sutton George Sutton
 Bernard Yozwiak Bernard Yozwiak

STUDENT MEMBERS

Diane Bogan Diane Bogan
 John Carano John Carano
 Carol Colburn Carol Colburn
 Richard Curry Richard Curry
 Mark DeLucci Mark DeLucci
 Toni DiSalvo Toni DiSalvo
 Valarie Hammond Valarie Hammond
 Anthony Koury Anthony Koury
 John Murosko John Murosko
 Abidin Pak Abidin Pak
 Tim Pysher Tim Pysher
 Jon Steen Jon Steen
 Alma Vinion Alma Vinion

APPRECIATION STATEMENT FROM DR. BEHEN

Let me express my warmest thanks to the Senate for the honor recently bestowed upon me. Being made an honorary member of the Senate is one of the nicest experiences of my academic career, as well as one of my greatest surprises. I am truly appreciative and very proud.

David M. Behen
Professor of History

YOUNGSTOWN STATE UNIVERSITY

INTER-OFFICE CORRESPONDENCE

TO Dean Yozwiak

DATE June 2, 1978

FROM N. Paraska

SUBJECT Labor Studies 515 and 530

When the Academic Affairs Committee was considering the Labor Studies Technology Program, the understanding was that Labor Studies 515 and 530 which are cross-listed with the Economics Department will be taught exclusively by faculty from the Economics Department unless the Economics Department is unable to provide faculty therefore or the courses as taught are not meeting the needs of the Labor Studies program. Since this is the basis on which approval was granted, I expect to honor this arrangement.


N. Paraska

NP:gy

CC: Dr. Edgar
Mrs. Mackall

COVER SHEET TO BE ATTACHED TO ALL REPORTS SUBMITTED TO THE ACADEMIC SENATE

Date 6-13-78

Report Number (For Senate Use Only) 778-36

Name of Committee Submitting Report University Curriculum Committee

Committee Status: (elected chartered, appointed chartered, ad hoc, etc.) Appointed charter

Names of Committee members: Dr. Margaret Braden, John Grim, Dr. William Jenkins, Roger Krause, Dr. Ronald Jonas, Dr. Philip Munro, Dr. David Robinson, Dr. James Steele, Dr. Calvin Swank, Harold Yiannaki

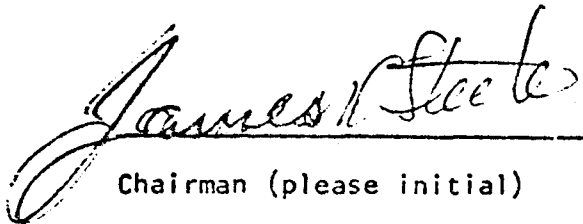
Please write a brief summary of the report which the Committee is submitting to the Senate: (attach complete report) The University Curriculum Committee meets weekly on ^{Mondays} ~~Wednesdays~~ at 3 p.m. in the Buckeye Room of Kil. Hall. The attached course proposals have been considered by the Committee, and have been circulated in the prescribed manner and have been incorporated into the University inventory of courses.

Do you anticipate making a formal motion relative to the report? No

If so, state the motion: _____

If there are substantive changes made from the floor in your committee recommendation, would the committee prefer that the matter be sent back to committee for further consideration? Yes

Other relevant data: _____


Chairman (please initial)

Respiratory Therapy Technology - Allied Health 505 (Addition)

Respiratory Therapy Science. A study of the principles and practices of airway managements, cardiopulmonary resuscitation, and mechanical ventilators. Prereq.: RT 501. 3 q.h.

Respiratory Therapy Technology - Allied Health 506 (Addition)

Clinical Practice I. Experience is provided in the basic procedures and techniques of basic O₂ administration. Fifteen hours clinical. Prereq.: RT 501. 3 q.h.

Respiratory Therapy Technology - Allied Health 507 (Addition)

Introduction to Pulmonary Disease. A study of diseases of the cardio-pulmonary system commonly encountered by the respiratory therapy technician. Prereq.: RT 502, 505, and 506. 3 q.h.

Respiratory Therapy Technology - Allied Health 508 (Addition)

Clinical Practice II. Practice involving widely used respiratory therapy treatments and pulmonary diagnostic testing. Twenty-five hours clinical. Prereq.: RT 502, 505, and 506. 5 q.h.

Respiratory Therapy Technology - Allied Health 509 (Addition)

Mechanical Ventilation and Pulmonary Rehabilitation. Newer concepts in ventilatory care, weaning approaches, and rehabilitation of the pulmonary deficient patient discussed. Prereq.: RT 503, 507, and 508. 3 q.h.

Respiratory Therapy Technology - Allied Health 509L (Addition)

Mechanical Ventilation and Pulmonary Rehabilitation Laboratory. Practice and experience with the set-up, maintenance, and function of the patient receiving mechanical ventilation. Techniques of Pulmonary Rehabilitation are also presented in the hospital setting. Three hours lab. Must be taken concurrently with RT 509. 1 q.h.

Respiratory Therapy Technology - Allied Health 510 (Addition)

Clinical Practice III. Advanced techniques and practice in patient care, including the pediatric patient will be presented. Twenty-five hours clinical. Prereq.: RT 503, 507, and 508. 5 q.h.

Business Education and Technology 535 (Addition)

Machine Shorthand I. Learning the theory of machine shorthand. Prereq.: BET 505 or equivalent. 3 q.h.

Business Education and Technology 536 (Addition)

Machine Shorthand II. Review theory with an emphasis on dictation speed and transcription. A speed of 60-80 words a minute should be attained. Prereq.: BET 521., and 535. 3 q.h.

Business Education and TEchnology 537 (Addition)

Machine Shorthand III. Emphasis on dictation speed and transcription. A dictation speed of 80-100 words a minute should be attained. Prereq.: BET 536. 3 q.h.

Business Education and Technology 538 (Addition)

Machine Shorthand IV. Emphasis on dictation speed and transcription. A dictation speed of 120 words a minute should be attained. Prereq.: BET 537. 3 q.h.

Business Education and Technology 635 (Addition)

Machine Shorthand V. Emphasis on dictation speed and transcription. A dictation speed of 140 words a minute should be attained. Prereq.: BET 538. 3 q.h.

Mathematical and Computer Sciences 860 (Change)

Mathematical Logic. An introduction to the study of theories in formalized languages and to the theory of models. Prereq.: Philosophy 619 or Mathematics 721 or consent of instructor. 4 q.h.

Mathematical and Computer Sciences 871 (Deletion) 872 (Change)

Intermediate Real Analysis III. A continuation of 752 with special emphasis on uniform convergence. Additional topics in the theory of functions of one or several variables. Prereq: Mathematics 674, 725, 752. ~~4~~ q.h.

Mathematical and Computer Sciences 727 (Deletion) 827 (Change)

Abstract Algebra III. A continuation of 722 with special emphasis on fields. Additional topics in pure or applied algebra. Prereq.: Mathematics 722 and 725. 4 q.h.

Mathematical and Computer Sciences 880 Change

Introduction to Topology. An introduction to the basic concepts of general topology. Compactness, connectedness, and continuity in topological spaces. Prereq.: Mathematics 722 and 752. 4 q.h.

Medical Assisting Technology - Allied Health 680 (Change)

Clinical Procedures. Theory of the purpose, techniques, and recording for laboratory and diagnostic procedures; patient and family teaching will be emphasized. Two hour lecture. Prereq.: MA 610. 680L must be taken concurrently. 2 q.h.

Mathematical and Computer Sciences 891 and 892 (Change)

Computer Science Internship Program. An academic/industrial experience centered upon the development of a significant computer project in local industry under the direction of University faculty member(s) and designated member(s) of the participating firm. The student intern will be employed on a 20-hour-per-week basis for each of two successive academic quarters. Periodic review of the project will be conducted by the academic/industrial advisors. A final written report of the project must be submitted by the student at the conclusion of the internship. The sequence 891-892 may be repeated once with the permission of the Department Chairman. Prereq.: Mathematics or Computer Science major having completed 21 hours of computer science and 110 academic hours and approval of the department internship committee. 2 + 2 q.h.

Economics Department 850 (Addition)

Introduction to Decision Analysis. An introduction to the study of rational decision-making under uncertainty in economics. Topics include the theory of utility, value of information, normal and extensive forms of analysis, economics of sampling, Bayesian analysis. Case studies are included. Prereq.: Econ. 621 & 624. 4 q.h.

Guidance, Counseling, and Pupil Personnel 821, 822 (Change)

Seminar in Guidance and Counseling. Study of selected topics chosen by staff. May be repeated for different topics. Prereq.: Upper division status. 1-4 q.h.

Special Education 861 (Change)

Introduction to Learning Disabilities and Behavior Disorders. Description and identification of disabling learning and behavior problems. Law and due process. A learner-centered orientation to classroom management strategies and individualized programming. Prereq.: Upper division status. 3 q.h.

Business Education and Technology 636 (Addition)

Machine Shorthand VI. Emphasis on dictation speed and transcription. A dictation speed of 160 words a minute should be attained. Prereq.: BET 635. 3 q.h.

Business Education and Technology 637 (Addition)

Machine Shorthand VII. Emphasis on dictation speed and transcription. A dictation speed of 175 words a minute should be attained. Prereq.: BET 636. 3 q.h.

Business Education and Technology 638 (Addition)

Machine Shorthand VIII. Emphasis on dictation speed and transcription. A speed of 200-225 words a minute should be attained for competency in job level skills. Prereq.: BET 637. 3 q.h.

Business Education and Technology 532 (Deletion)

Machine Shorthand I. Learning the theory of machine shorthand. Prereq.: BET 505 or equivalent. 4 q.h.

Business Education and Technology 632 (Deletion)

Machine Shorthand II. Review theory with an emphasis on dictation speed and transcription. A speed of 70 words a minute should be attained. Prereq.: BET 521 and 532. 4 q.h.

Business Education and Technology 633 (Deletion)

Machine Shorthand III. Emphasis on dictation speed and transcription. A dictation speed of 90 words a minute should be attained. Prereq.: BET 521 and 632. 4 q.h.

Business Education and Technology 732, 733, and 734 (Deletion)

Machine Shorthand IV, V, VI. Progression of development of machine shorthand theory, speed and transcription for competency in job entry level skills. Must be taken in sequence. Prereq.: BET 633. 4 + 4 + 4 q.h.

Business Education and Technology 704 (Change)

Business Communications. The mechanics, psychology, and principles of effective letter and report writing and oral communication in business. Prereq.: BET 505 or equivalent, BET 521 or equivalent. 4 q.h.

Mathematical and Computer Sciences 701 (Deletion)

Introduction to Set Theory. Algebra of sets; relations and functions as sets; cardinal and ordinal numbers; the well-ordering theorem and equivalent principles. Emphasis is on logical development of the subject. prereq.: Math 673 or consent of instructor. 4 q.h.

Mathematical and Computer Sciences 721 and 722 (Addition)

Abstract Algebra I, II. Algebra of sets, relations, and functions; elementary group theory; rings, domains; and supportive material from number theory. Prereq.: Mathematics 673 for 720, 720 for 721. * 3 + 3 q./j/
footnote* Replaces 727. Students who have taken 727 for credit cannot receive credit for 721 or 722. (This footnote to be deleted in 3 years).

Mathematical and Computer Sciences 751 and 752 (Addition)

Intermediate Real Analysis I, II. Elementary logic, properties of the real number system, critical analysis of limits and continuity, fundamental concepts underlying the calculus. Prereq.: Math 673 for 751 and 751 for 752.*
footnote: *REplaces 871. Students who have taken 871 for credit cannot receive credit for 751 or 752.

Special Education 862 (Change)

Clinical Teaching of Children with Learning Disabilities and Behavior Disorders. Educational diagnostic procedures are used to develop a comprehensive assessment of a child's current functioning, and to develop an individualized educational plan (IEP) with built-in behavior management strategies. Prereq.: or co-req.: ED 863. 4 q.h.

Special Education 863 (Change)

Learning Disabilities and Behavior Disorders. An in-depth developmental orientation to learning and behavior problems. Designed to enable the teacher to recognize and understand the many complex factors related to etiology and to current functioning. The contributions of various non-educational disciplines are related to the learner's social adjustment and to academic programming. Prereq.: ED 861. 4 q.h.

Electrical Engineering 813R, 814R (Deletion) 825 (Addition)

Sequential Logic Circuits. Theory and applications of sequential circuits. Flip-flops, shift registers and counters. Clock-mode, pulse-mode and level-mode sequential circuits. Must be taken concurrently with 825L. Prereq.: EE 702. 3 q.h.

Electrical Engineering 813L, 814L (Deletion) 825L (Addition)

Sequential Logic Circuits Laboratory. Laboratory exercises to accompany EE 825. Must be taken concurrently with EE 825. 3 hours laboratory. 1 q.h.

Electrical Engineering 826 (Addition)

Advanced Logic Circuits. Theory and design techniques for advanced combinational and sequential circuits. Timing, analysis of hazards and races, design of large-scale circuits using register transfer languages, and designing with MSI and LSI circuits. Combinational functions with special properties, and threshold logic. Must be taken concurrently with EE 826L. Prereq.: EE 825 and 825L. 3 q.h.

Electrical Engineering 826L (Addition)

Advanced Logic Circuits Laboratory. Laboratory exercises to accompany EE 826. Must be taken concurrently with EE 826. 3 hours laboratory. 1 q.h.

Mechanical Engineering 750 (Deletion)

Strength of Materials III. Analysis (including Mohr circle representation) of stresses and strains at a point. Introduction to classical elasticity; boundary value problems in rectangular Cartesian and cylindrical polar coordinates, energy method of Castigliano. Prereq: CE 603. Prereq. or concurrent: Math 706. 3 q.h.

Mechanical Engineering 851 (Deletion)

Strength of Materials IV. Theories of failure for metals. Introduction to plasticity, creep, impact, and fatigue of metals. Prereq.: ME 750. 4 q.h.

Mechanical Engineering 751 (Addition)

Stress and Strain Analysis I. Analysis (including Mohr circle representation) of two- and three-dimensional stresses and strains at a point. Application of theory to techniques of experimental stress analysis. Stress concentration factors. Energy method--Castigliano's Theorem. Dynamic loading. Introduction to theories of failure. Prereq: CE 603 and Math 673. 4 q.h.

Mechanical Engineering 852 (Addition)

Stress and Strain Analysis II. A first course in classical elasticity; boundary value problems in rectangular Cartesian and cylindrical polar coordinates. Introduction to inelastic behavior and high temperature creep. Prereq. ME 751 and Math 706 4 q.h.

Mechanical Engineering 851L (Deletion)

Strength of Materials IV Laboratory. Static and dynamic electrical strain gage applications. Introduction to photoelasticity. Theory of brittle lacquers. Prereq. or concurrent: ME 750. 1 q.h.

Mechanical Engineering 850L (Addition)

Stress and Strain Analysis Laboratory. Static and dynamic electrical strain gage applications. Introduction to photoelasticity. Theory of brittle lacquers. Three hours laboratory per week. Prereq.: ME 751. 1 q.h.

Mechanical Engineering 860 (Deletion)

Machine Design I. The design and use of machine elements such as shafts, keys, couplings, springs, screws, and welded connections. Prereq.: ME 750. 3 q.h.

Mechanical Engineering 762 (Addition)

Machine Design I. Theories of failure applied to the design of various machine elements subjected to static, dynamic and repeated loading; temperature considerations. Elements considered include shafts, springs, curved beams, thick-walled cylinders, flywheels, belts, chains, clutches and brakes. Prereq.: ME 751. 4 q.h.

Mechanical Engineering 860L (Deletion)

Machine Design I, Laboratory. Practical design problems, each incorporating the design of several machine elements. Taken concurrently with ME 860. 1 q.h.

Mechanical Engineering 762L (Addition)

Machine Design I Laboratory. Practical design problems incorporating force analysis, material selection and sizing of machine elements. Three hours laboratory per week. Taken concurrently with ME 762. 1 q.h.

Mechanical Engineering 861 (Deletion)

Machine Design II. A continuation of Machine Design I, including brakes, clutches, belts; lubrication; ball and roller bearings; spur, bevel, worm, and helical gears; and flywheels. Selected application of Castigliano's theorem. Prereq.: ME 860, 860L. 3 q.h.

Mechanical Engineering 863 (Addition)

Machine Design II. A continuation of Machine Design I including lubrication; ball and roller bearings; spur, bevel, worm and helical gears. Special topics related to the term design project in the accompanying laboratory course, ME 863L including considerations of economics, reliability and legal responsibility. Must be taken concurrently with ME 863. Prereq: ME 762. 4 q.h.

Mechanical Engineering 861L (Deletion)

Machine Design II, Laboratory. Practical design problems involving all of the subjects covered in Machine Design I and II. Specifications for gearing and materials are introduced in the design problems. Taken concurrently with ME 861. 1 q.h.

Mechanical Engineering 863L (Addition)

Machine Design II Laboratory. Term project involving the design of a machine system. Three hours laboratory per week. Must be taken concurrently with ME 863. 1 q.h.

Mechanical Engineering 830L (Change)

Fluid Mechanics Laboratory. Experiments on compressible fluid flow in the subsonic and supersonic regions. Taken concurrently with ME 830. Three hours laboratory per week. 1 q.h.

Mechanical Engineering 870L (Change)

Mechanical Vibrations Laboratory. Experiments involving mechanical systems and some electrical analogies. Analog computer simulation of vibrations systems is introduced. Taken concurrently with ME 870. Three hours laboratory per week. 1 q.h.

Mechanical Engineering 872L (Change)

Engineering Acoustics Laboratory. Application of acoustic instrumentation such as sound level meters, filters, frequency analyzers, level recorders and tape recorders to problems involving room acoustics, sounds in pipes, noise barriers and machinery noise. Taken concurrently with ME 872. Three hours laboratory per week. 1 q.h.

Engineering Technology CET 824 (Addition)

Environmental Technology. A course designed to assist the student in preparing for employment in sewage treatment plant operation or in laboratory or field environmental testing. Three hours lecture, three hours laboratory per week. Prereq.: CET 624 or equivalent. 4 q.h.

Engineering Technology CET 717 (Addition)

Underground Construction. Design and construction procedures in earth and rock. Applications of tunnels and other underground structures for rapid transit, water supply and waste. Prereq.: CET 615, CET 610. 4 q.h.

Engineering Technology CET 710 (Addition)

Structural Analysis II. A continuation of CET 610. Emphasis on practical analysis techniques for common building structures. Introduction to classical approaches to statically indeterminate structures. Prereq.: CET 610 or equivalent. 4 q.h.

Engineering Technology CPT 700 (Addition)

Data System Management. The study of conventional data files and integrated data organization through the use of structured representation of data and programs. Tasks pertaining to mechanization and translation, and table management related to file organization and data representation. Prereq.: CPT 601. 4 q.h.

Engineering Technology CET 607 (Change)

Solid Mechanics I. Elementary theory in resistance of solids to external loading. Relationships among load, deformation, stress and strain in tension, compression, torsion, and bending. Physical demonstration and verification of theories. Prereq.: CET 604. 4 q.h.

Engineering Technology CET 707 (Addition)

Solid Mechanics II. A continuation of CET 607. Practical solutions to problems involving structural members and load applications. Indeterminate beams, out-of-plane loads, torsion of non-circular sections and other applications as experienced by the structural or machine design/draftsman. Prereq.: CET 607 or equivalent. 4 q.h.

Home Economics 751 (Change)

Advanced Food Preparation. Advanced study of the interrelationship of principles used in food preparation in homes and institutions. Prereq.: Home Economics 601. 4 q.h.

Home Economics 614 (Deletion)

Child Care III. Supervised participation in all phases of operation and functioning in day care center programs. One hour of lecture and discussion and six hours of laboratory per week. Prereq.: Home Economics 613. 4 q.h.

Home Economics 613 (Deletion)

Child Care II. The philosophy and the organization of a total day care center to include management, program scheduling, and methods of material presentation. Prereq.: Home Economics 612. 4 q.h.

Home Economics 663 (Addition)

Child Care II. Supervised participation in all phases of operation and functioning in child care centers. One classroom hour and nine hours of laboratory per week. Prereq.: HE 512, Psychology 755 and Elem. Ed. 630. 4 q.h.

Home Economics 664 (Addition)

Child Care III. The philosophy and organization of a total child care center to include management, scheduling, provision of services, staffing and record keeping. Prereq.: H.E. 613. 4 q.h.

Criminal Justice 649 (Deletion)

Firearms Instructional Techniques. Course organization, instructional methods, techniques, materials and skills in the area of police firearms instructor training, with required practical application. A review of basic firearms fundamentals, safety, and legal and moral use of firearms. Equivalent to one lecture and one 3 hour lab per week.