# MICHIGAN STATE UNIVERSITY

**Report of**

**THE UNIVERSITY COMMITTEE ON CURRICULUM**

**to the Faculty Senate November 15, 2022**

*The effective date for new programs subject to Statewide Academic Program review is implemented in accordance with the Statewide Academic Program Review calendar.*

TO: Faculty Senate

MICHIGAN STATE UNIVERSITY

University Committee on Curriculum

November 15, 2022

This report is prepared and distributed for the following purposes:

1. To report new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses.
2. To notify the initiating colleges, schools, and departments of approval by the University Committee on Curriculum of their requests for new academic programs, changes in academic programs, discontinuations of academic programs, new courses, permanent changes in courses, and deletions of courses. Any items not approved by the Faculty Senate will be reported to the appropriate college and department or school.
3. To provide information to members of the faculty in each department about academic programs and courses in all colleges, departments, and schools of the University.

Reports of the University Committee on Curriculum to the Faculty Senate are organized as follows: PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES:

Organized by colleges in alphabetical order. For a given college, academic units are organized in alphabetical order. For a given academic unit, degrees, majors, and specializations are organized in alphabetical order.

PART II - NEW COURSES:1

Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

PART III - COURSE CHANGES:1

Organized by academic units in alphabetical order; All-University courses appear last. For a given academic unit, courses are organized according to the names associated with course subject codes, in alphabetical order. Courses with the same subject code are in numerical order.

Not all of the above categories, and not all of the colleges and academic units, will necessarily appear in any given Senate Report.

1One or more of the abbreviations that follow may be included in a course entry:

|  |  |  |
| --- | --- | --- |
| P: | = | Prerequisite monitored in SIS |
| C: | = | Corequisite |
| R: | = | Restriction |
| RB: | = | Recommended background |
| SA: | = | Semester Alias |

MICHIGAN STATE UNIVERSITY

November 15, 2022

TO: Faculty Senate

FROM: University Committee on Curriculum

SUBJECT: New Academic Programs and Program Changes:

New Courses and Course Changes

# PART I - NEW ACADEMIC PROGRAMS AND PROGRAM CHANGES

## COLLEGE OF ARTS AND LETTERS

1. Change the requirements for the **Minor** in **Graphic Design** in the Department of Art, Art History, and Design.
   1. Under the heading **Requirements for the Minor in Graphic Design** replace the entire entry with the following:

Complete 15 credits from the following:

1.

|  |  |  |  |
| --- | --- | --- | --- |
| All of the following courses (9 credits): | | | |
| GD | 160 | Digital Graphic Design: Tools and Methods | 3 |
| GD | 200 | History of Graphic Design | 3 |
| GD | 260 | Concepts of Graphic Design | 3 |
| Two of the following courses (6 credits): | | | |
| GD | 295 | Design Thinking for Entrepreneurs | 3 |
| STA | 110 | Drawing I | 3 |
| STA | 113 | Color and Design | 3 |

2.

Effective Spring 2023.

1. Change the administrative responsibility of the **Doctor of Philosophy** degree in **Second Language Studies** from the College of Arts and Letters to the Department of Linguistics, Languages and Cultures.
2. Change the requirements for the **Doctor of Philosophy** degree in **Second Language Studies** in the Department of Linguistics, Languages and Cultures. The University Committee on Graduate Studies (UCGS) will consider this request at its October 17, 2022 meeting.
   1. Under the heading **Admission** replace items 1. through 5. with the following:
      1. The results of the Graduate Record Examination General Test.
      2. An Academic Statement of Purpose (ASOP).
      3. A writing sample, preferably a research paper or other product that reflects the degree of the applicant’s familiarity with applied linguistics.
      4. Three academic references from faculty who are able to address the applicant’s academic background and/or professional experiences.
      5. For international applicants and applicants whose first language is not English, English language test scores, with the test being an approved one from the Michigan State University Graduate School’s list of English language tests for international students.
   2. Under the heading **Guidance Committee** replace the entire entry with the following:

The Program Director will serve as the initial advisor. By the midpoint of the second semester, the student will select a guidance committee with a chair. This committee will be comprised of four members, including two core second language studies faculty members.

* 1. Under the heading **Requirements for the Doctor of Philosophy Degree in Second Language Studies** make the following changes:

1. Replace item 2. with the following:

Complete five courses for a minimum of 15 credits selected from courses listed as elective options in the Second Language Studies Graduate Student Handbook or as approved by the guidance committee.

1. Replace item 3. with the following:

Within one year of completion of the course work, students must write two qualifying research papers in two separate areas. Each qualifying research paper must be read and approved by two core Second Language Studies faculty members, with any exceptions approved by the Second Language Studies Director.

1. Replace item 4. with the following:

Write and successfully defend a dissertation proposal including a literature review, the research questions, the methodology, including the participants, materials, and analysis plans, the reference list, the timeline, and the budget.

* 1. Under the heading **Academic Standards** make the following changes:

1. Add the following items 3. and 4.:
2. Not obtain more than 3 credits with a grade below 3.0.
3. Submit the first qualifying research paper by the final submission date within the fourth semester in the program.
4. Add the following sentence to the last paragraph:

No more than one required examination, pre-dissertation or dissertation defenses, can be failed.

Effective Spring 2023.

## ELI BROAD COLLEGE OF BUSINESS

1. Change the requirements for the **Master of Business Administration** degree in **STEM** in The Eli Broad College of Business and Graduate School of Management. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the STEM Master of Business Administration Degree**

make the following changes:

* + 1. Delete item b.:

All of the following supply chain management courses:

|  |  |  |  |
| --- | --- | --- | --- |
| SCM | 825 | Strategic Sourcing | 1.5 |
| SCM | 826 | Manufacturing Design and Analysis | 1.5 |
| SCM | 827 | Competing Through Supply Chain Logistics | 1.5 |
| SCM | 852 | Supply Management | 1.5 |
| SCM | 853 | Operations Strategy | 1.5 |
| SCM | 854 | Integrated Logistics Systems | 1.5 |
| SCM | 855 | Supply Chain Management Technology and |  |
|  |  | Applications I | 1.5 |
| SCM | 856 | Supply Chain Management Technology and |  |
|  |  | Applications II | 1.5 |

* + 1. In item 2., add the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| SCM | 825 | Strategic Sourcing | 1.5 |
| SCM | 826 | Manufacturing Design and Analysis | 1.5 |

|  |  |  |  |
| --- | --- | --- | --- |
| SCM | 827 | Competing Through Supply Chain Logistics | 1.5 |
| SCM | 852 | Supply Management | 1.5 |
| SCM | 853 | Operations Strategy | 1.5 |
| SCM | 854 | Integrated Logistics Systems | 1.5 |
| SCM | 855 | Supply Chain Management Technology and |  |
|  |  | Applications I | 1.5 |
| SCM | 856 | Supply Chain Management Technology and |  |
| Effective Fall 2023. |  | Applications II  **COLLEGE OF MUSIC** | 1.5 |

1. Change the requirements for the **Doctor of Philosophy** degree in **Music Education** in the College of Music. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Admission** replace paragraph three with the following:

Students who are admitted to the doctoral program in music education must have completed each of the following graduate courses with a grade of at least 3.0 (B): two courses in either historical musicology or ethnomusicology, and one music theory course in advanced analysis. A student who has not completed such courses will be required to complete those courses, in addition to completing the courses that are required for the doctoral degree.

Effective Spring 2023.

1. Change the requirements for the **Master of Arts** degree in **Musicology** in the College of Music. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the Master of Arts Degree in Musicology** make the following changes:
      1. Under the heading **Requirements for Both Plan A and Plan B**, replace item with the following:

Demonstrate a reading knowledge of one foreign language, approved by the student’s academic advisor. Credits in courses in a foreign language may not be counted toward the requirements for the Master of Arts degree in musicology.

Effective Spring 2023.

1. Change the requirements for the **Master of Music** degree in **Piano Pedagogy** in the College of Music. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the Master of Music Degree in Piano Pedagogy** make the following changes:
      1. In item 1., change the total credits from ‘17’ to 19’ and delete the following courses:

|  |  |  |  |
| --- | --- | --- | --- |
| MUS | 849 | Piano Performance | 2 |
| MUS | 850A | Piano | 6 |

Add the following course:

MUS 896 Master’s Performance 10

The credits of MUS 896 must include at least 4 credits of instruction in piano (1 credit for each of four semesters), 4 credits of piano performance class (1 credit for each of four semesters), and 2 credits of instruction in chamber music (1 credit for each of two semesters).

* + 1. In item 4., delete the following course:

MUS 856 Chamber Music 1 or 2

Add the following course:

MUS 850J Jazz Piano 1 or 2

* + 1. Replace item 5. with the following:

Perform a piano recital under the guidance of the student's applied music instructor and approved by a committee from the piano area in a pre-recital hearing. A recording of the recital must be submitted to the office of the Associate Dean for Graduate Students and will be retained by the College as part of the permanent degree record.

* + 1. Replace the **Academic Standards** statement with the following: A grade of 3.0 or higher is required for Music 898.

Effective Spring 2023.

## COLLEGE OF NURSING

1. Change the requirements for the **Doctor of Nursing Practice** degree in **Nursing Practice**. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.

*The concentrations in the Doctor of Nursing Practice degree in Nursing Practice are noted on the student’s academic record when the requirements for the degree have been completed.*

* 1. Under the heading **Admission** replace item 6. with the following:

Complete a 3-credit undergraduate statistics course with a grade of 2.0 (4.0 scale) or better within the last five years or complete a 3-credit graduate statistics course with a grade of 3.0 (4.0) or better within the last five years. A statistics course taken more than five years ago is acceptable with a passing grade on an Accredited Statistics Exam.

Effective Spring 2023.

## COLLEGE OF SOCIAL SCIENCE

1. Change the requirements for the **Doctor of Philosophy** degree in **Economics**. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the Doctor of Philosophy Degree in Economics** replace the entire entry with the following:
      1. Complete all of the following courses (18 credits):

|  |  |  |  |
| --- | --- | --- | --- |
| EC | 812A | Microeconomics I | 3 |
| EC | 812B | Microeconomics II | 3 |
| EC | 813A | Macroeconomics I | 3 |
| EC | 813B | Macroeconomics II | 3 |
| EC | 820A | Econometrics IA | 3 |
| EC | 820B | Econometrics IB | 3 |

* + 1. Complete seven additional EC courses at the 800-900 level totaling at least 19 credits, excluding Economics 950 and Economics 951. Courses outside of Economics may be substituted for this requirement only with the written approval of the Economics Graduate Program Director.
    2. Obtain a Ph.D.-level pass on the qualifying examinations in microeconomic theory, macroeconomic theory, and econometrics.
    3. Pass the written and oral comprehensive examinations. The oral examination consists of an oral presentation at the departmental Spring research conference (typically in the third year of study), and the written examination consists of the paper presented at that conference, as judged by members of the student’s dissertation committee.
    4. Present a dissertation proposal to the student’s guidance committee.
    5. Write an acceptable dissertation and defend it successfully in a public oral examination.
    6. Complete the following departmental research seminar courses, typically in the fourth year of study:

|  |  |  |  |
| --- | --- | --- | --- |
| EC | 950 | Research Seminars in Advanced Topics in Economics I | 1 |
| EC | 951 | Research Seminars in Advanced Topics in Economics II | 1 |

Effective Spring 2023.

1. Change the requirements for the **Doctor of Philosophy** degree in **History** in the Department of History. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Admission**, make the following changes:
2. In paragraph two, delete item 2. and renumber accordingly:

Have the results of the Graduate Record Examination (GRE) General Test forward to the department.

1. Following paragraph three, add the following new paragraph:

In rare instances, exceptional applicants whose English proficiency does not meet the minimum requirements at the time of application, will be admitted provisionally, with the understanding that the applicant must demonstrate sufficient English language proficiency before admission and funding can be extended. Typically, the cutoff date to do so for fall semester is in early June.

* 1. Under the heading **Requirements for the Doctor of Philosophy Degree in History**, replace the entire entry with the following:

The student must:

* + 1. Complete HST 803 Seminar in Methodology of Historical Research (3 credits) in the first semester of their first year.
    2. Complete HST 804 Advanced Research and Professional Development Seminar in the fourth semester of study. Students who enter with a Master of Arts degree may waive this requirement with the approval of the major advisor and Graduate Director.
    3. Complete HST 812 History in the Digital Age, unless waived by major advisor and Graduate Director.
    4. Complete an additional 24 credits of 800 to 900 or graduate-level equivalent courses chosen in consultation with the student's guidance committee.
    5. Student must demonstrate knowledge of two foreign languages before they may take the comprehensive examinations. This requirement for students formally admitted to the Ph.D. program can be fulfilled by one of these three options:
       1. Competency in two foreign languages.
       2. With approval of the student’s guidance committee, the student may substitute certification in humanities computing for the second foreign language.
       3. With the approval of the student’s guidance committee, the second foreign language may be waived.
    6. Pass the written and oral comprehensive examinations:
       1. Written examinations must be completed within a six-month period by the end of a student’s third year.
       2. An oral examination must be completed no later than two weeks after the student successfully passes the written examination.
       3. A defense of the dissertation prospectus needs to take place either at the time of the oral examination or in a separate defense within six weeks of the oral examination.
    7. Complete 24 credits of HST 999 Doctoral Dissertation Research.
    8. Pass a final oral examination in defense of the dissertation.

Effective Spring 2023.

1. Change the requirements for the **Bachelor of Arts** degree in **Sociology** in the Department of Sociology.
   1. Under the heading **Requirements for the Bachelor of Arts Degree in Sociology** make the following changes:
      1. In item 3., make the following changes:
         1. Change the total credits from ‘33’ to ‘36’.
         2. In item a., add the following courses:

SOC 215 Race and Ethnicity 3

SOC 216 Sex, Gender, and Sexuality 3

* + - 1. Delete item b.
      2. Replace item c. with the following:
  1. A minimum of 9 additional credits in Sociology courses at the 300-level or higher, at least 3 credits of which must be at the 400-level.

(2) Delete item 4. and the note following.

Effective Spring 2023.

## COLLEGE OF VETERINARY MEDICINE

1. Change the requirements in the **Master of Science** degree in **Comparative Medicine and Integrative Biology** in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the Master of Science Degree in Comparative Medicine and Integrative Biology** make the following changes:
      1. Under the heading ***Requirements for Both Plan A and Plan B*** make the following changes:
         1. In item 1., delete the following course:

EPI 827 The Nature and Practice of Scientific Integrity 3

* + - 1. In item 2., delete the following course:

PHM 980 Problems 3

Add the following course:

PHM 830 Experimental Design and Data Analysis 3

* + 1. Under the heading ***Additional Requirements for Plan A*** replace the entire entry with the following:

1. One course from at least two of the following three major areas: Molecular Life Sciences, Integrative Biology, and Pathology. A list of approved courses is available from your academic advisor.
2. Complete at least 10 credits of 899 Master’s Thesis Research.
3. Fulfill the Graduate School requirement for Responsible Conduct of Research, Scholarship and Creative Activity (RCRSCA).
4. Successfully defend the master’s thesis.
   * 1. Under the heading ***Additional Requirements for Plan B*** replace the entire entry with the following:
5. One course from each of the following three major areas: Molecular Life Sciences, Integrative Biology, and Pathology. A list of approved courses is available from your academic advisor.
6. Fulfill the Graduate School requirement for Responsible Conduct of Research, Scholarship and Creative Activity (RCRSCA).
7. Submit a satisfactory research paper.

Effective Spring 2023.

1. Change the requirements in the **Doctor of Philosophy** degree in **Comparative Medicine and Integrative Biology** in the College of Veterinary Medicine. The University Committee on Graduate Studies (UCGS) approved this request at its October 17, 2022 meeting.
   1. Under the heading **Requirements for the Doctor of Philosophy Degree in Comparative Medicine and Integrative Biology** replace the entire entry with the following:

The student must complete a minimum of 18 credits of non-research courses, with at least 12 credits in courses at the 800 level and above. In rare cases, a student may lack sufficient background in certain areas and may be asked to complete collateral courses at the 400 or 500 level. Credits earned in such collateral courses are not counted towards the degree.

Students must complete the following requirements for the degree:

* + 1. At least two enrollments in:

VM 820 Current Topics in Comparative Medicine and

Integrative Biology 2

* + 1. At least 14 credits in electives that are approved by the student's guidance committee and that include at least one course from each of four major areas: molecular life sciences, integrative biology, pathology, and statistics and epidemiology.
    2. The following course (24 to 36 credits):

VM 999 Doctoral Dissertation Research 24 to 36

* + 1. Successfully defend the doctoral dissertation.
    2. Fulfill the Graduate School requirement for Responsible Conduct of Research, Scholarship and Creative Activity (RCRSCA).

Effective Spring 2023.

# PART II - NEW COURSES

## DEPARTMENT OF ART, ART HISTORY, AND DESIGN

HA 209 Ancient Art

Fall of every year. 3(3-0)

REINSTATEMENT The arts of antiquity: painting, sculpture, and architecture in Egypt, Mesopotamia, Greece, and Rome until Constantine the Great.

Effective Fall Semester 2023

## DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

BMB 491 Internship in Biochemistry and Molecular Biology

Fall of every year. Spring of every year. Summer of every year. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. P: (BS 161 or BS 181H or LB 145) and (BS 162 or BS 182H or LB 144) RB: BMB 370 R: Open to undergraduate students in the Biochemistry and Molecular Biology/Biotechnology Major or in the Biochemistry and Molecular Biology major or in the Lyman Briggs Biochemistry and Molecular Biology Coordinate Major or in the Lyman Briggs- Biochemistry/Biotechnology Coordinate Major. Approval of department; application required.

Supervised professional experience related to Biochemistry and Molecular Biology in Industry, Medicine, Pharmacy, Science Policy, Science Communication, Research, Patent Law

Request the use of the Pass-No Grade (P-N) system. Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

Effective Summer Semester 2023

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

ENE 828 Land Surface Hydrological Modeling

Spring of odd years. 3(3-0) Interdepartmental with Civil Engineering. P: ENE 421 RB: ENE 421 R: Open to graduate students.

Concepts in modeling various land surface hydrological processes such as evapotranspiration, soil and shallow groundwater movement, river-floodwater movement, reservoir operation) at varying spatial scales, from catchment to global. Fully process based models that resolve both water and energy balance equations. Linkages to climate system and climate change impacts. Numerical methods used to solve complex governing equations of surface water and groundwater flows.

Effective Spring Semester 2023

## DEPARTMENT OF LINGUISTICS, LANGUAGES AND CULTURES

LLT 891 Special Topics in Applied Linguistics

On Demand. 1 to 5 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for graduate students.

Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

Effective Spring Semester 2023

# PART III – COURSE CHANGES

## DEPARTMENT OF AGRICULTURAL, FOOD, AND RESOURCE ECONOMICS

AFRE 810 Institutional and Behavioral Economics

Fa~~l~~l ~~o~~f ~~ever~~y year. On Demand. 3(3-0) Interdepartmental with Economics. RB: EC 301 Relationships among institutions, individual and collective actions, and economic performance. Public choice, property rights, and behavioral theories of firms and bureaucracies.

SA: AEC 810

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2015 Effective Fall Semester 2022

AFRE 829 Economics of Environmental Resources

Fall of every year. ~~Sprin~~g ~~o~~f ev~~er~~y year. 3(3-0) Interdepartmental with Community Sustainability and Economics and Forestry and Fisheries and Wildlife. RB: Undergraduate intermediate microeconomics, calculus, and statistics

Economic principles, theoretical models, and empirical methods related to environmental problems and policy interventions. Applications to air, land, water, forests, energy, fish and wildlife, and climate change, including in developing countries.

SA: AEC 829

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2015 Effective Fall Semester 2022

## DEPARTMENT OF ART, ART HISTORY, AND DESIGN

GD 295 Design Thinking for Entrepreneurs

Fall of every year. Spring of every year. Summer of every year. 3(0-6) ~~R~~: ~~Ope~~n ~~t~~o stude~~nt~~s ~~i~~n the Entrepreneursh~~i~~p a~~n~~d Innova~~tio~~n Minor.

Skills in ideation and innovation, discovering human needs and matching them with feasible solutions developed in accordance with the principles and practices of entrepreneurship; creating value and working towards social good by developing solutions to complex issues affecting multiple systems or populations.

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2019 Effective Spring Semester 2023

## DEPARTMENT OF BIOCHEMISTRY AND MOLECULAR BIOLOGY

BMB 370 Introductory Biochemistry Laboratory

Fall of every year. Spring of every year. 3(2-3) ~~P~~: {(MTH ~~11~~6 ~~o~~r ~~L~~B ~~117~~) ~~o~~r (MTH ~~10~~3 and MTH ~~114)~~} a~~n~~d ~~(B~~S ~~17~~1 ~~o~~r ~~B~~S 191H ~~o~~r ~~L~~B ~~145~~) a~~n~~d ~~(CE~~M 162 or ~~CE~~M ~~185~~H ~~o~~r ~~L~~B 172L) P: {(MTH 103 and MTH 114) or (MTH 116 or LB 117) or (MTH 132 or MTH 152H or LB 118)} and (CEM 162 or

CEM 185H or LB 172L) and (BS 171 or BS 191H or LB 145) R: Open to undergraduate students in the Biochemistry and Molecular Biology/Biotechnology Major or in the Biochemistry and Molecular Biology major or in the Lyman Briggs Biochemistry and Molecular Biology Coordinate Major or in the Lyman Briggs-Biochemistry/Biotechnology Coordinate Major or approval of department.

Basic quantitative laboratory introducing biochemical methods and principles for the study of proteins and nucleic acids using data analysis.

Request the use of ET-Extension to postpone grading.

The work for the course must be completed and the final grade reported within 1 semester after the end of the semester of enrollment.

~~Effectiv~~e ~~Summe~~r ~~Semeste~~r 2022 Effective Summer Semester 2023

## DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING

CE 800 Structural Dynamics

Fa~~l~~l ~~o~~f ~~ever~~y year. Fall of odd years. 2(2-0) 3(3-0)

Dynamic response of single degree-of-freedom systems. Damping in structure and soils. Time and frequency domain methods. Analytical and numerical techniques. Earthquake response spectra. Classical and finite element formulation.

~~Effectiv~~e Spring ~~Semeste~~r 2022 Effective Fall Semester 2023

## DEPARTMENT OF COMMUNITY SUSTAINABILITY

CSUS 855 Political Ecology of Food

Fall of even years. 3(3-0) RB: CSUS 811 or concurrently R: Open to graduate students or approval of department.

Interactions between food, society and the environment. Ecological impacts and sociopolitical power in international and domestic contexts.

DELETE COURSE

Effective Fall Semester 2022

## DEPARTMENT OF MARKETING

MKT 913 ~~Semina~~r in Mark~~etin~~g Relationships

Seminar in Judgment and Decision-Making in Marketing

Fall of odd years. ~~Sprin~~g ~~o~~f ev~~e~~n years. 3(3-0) ~~P~~: ~~MK~~T ~~90~~8 a~~n~~d ~~MK~~T 911 R: Open to doctoral students in the Eli Broad College of Business and The Eli Broad Graduate School of Management or approval of department.

Interorganizational issues in marketing. Theoretical perspectives on marketing strategy ~~issue~~s ~~fro~~m a ~~micr~~o competitive persp~~ective~~. ~~Integratio~~n ~~o~~f existi~~n~~g theorie~~s~~. Behavioral decision theory (BDT) and/or the heuristics and biases literature: includes topics such as rationality, mental accounting, choice conflict, ego depletion, and feelings as information. SA: MSC 913

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2009 Effective Spring Semester 2023

## DEPARTMENT OF MECHANICAL ENGINEERING

ME 922 Thermoelasticity ~~an~~d Viscoelasticity

Viscoelasticity and Poroelasticity

Spring of even years. 3(3-0) RB: ~~M~~E ~~82~~0 ~~an~~d MTH 443 RB: ME 820

Thermomechan~~ic~~s ~~o~~f soli~~ds~~. T~~heor~~y ~~o~~f thermoelastici~~ty~~. Boun~~dar~~y val~~u~~e probl~~em~~s in thermoelasticity. Linear and nonlinear viscoelasticity. Model representation. Boltzmann superpositi~~on~~. Corresponden~~c~~e princi~~ple~~. Linear and nonlinear viscoelasticity.

Micromechanics models and constitutive theories. Frequency response. Thermal effects. Poroelasticity. Compressible and incompressible constituents. Application to gels, pastes, soft tissue, and geotechnical materials.

SA: MSM 918

~~Effectiv~~e Fa~~l~~l ~~Semeste~~r 2002 Effective Spring Semester 2024