UNIVERSITY OF NEBRASKA AT OMAHA

**EDUCATIONAL POLICY ADVISORY COMMITTEE**

**AGENDA**

**Friday, January 13, 2017**

**8:00 AM**

**202 Eppley Administration Building**

1. Announcements/Discussion
2. Summary 12-9-16
3. Curriculum
4. Graduate Certificate in Biomedical Sciences
5. Course Syllabi

**PLEASE NOTE: NEW URL to CCMS**

You may access the system at <http://www.unomaha.edu/my/> scroll down to CCMS and click on login. You will be viewing these courses at the **VC for Academic Affairs level**.

**New Courses**

1. CACT 8060 Topics in Critical and Creative Thinking, 3 hrs.
2. SOWK 4050 Ethnic Diversity and Social Work Practice, 3 hrs.
3. COUN 8630 Foundations and Issues in Secondary School Counseling, 3 hrs.
4. COUN 8740 School Counseling Groups, 3 hrs.
5. MKT 4220 Global Strategic Account Management, 3 hrs.
6. COUN 8700 Child and Adolescent Counseling, 3 hrs.
7. COUN 8800 Clinical Mental Health Counseling, 3 hrs.
8. IASC 4430 Quantum Computing and Cryptography, 3 hrs.
9. IASC 4440 Industrial Control System Security, 3 hrs.
10. IASC 8450 Applied Cryptography, 3 hrs.
11. IASC 8000 CAE-Cyber Operations Completion Certificate, 0 hrs.
12. ANTH 4940 Archaeological Field Methods, 3 hrs.
13. BMCH 2200 Analytical Methods in Biomechanics, 3 hrs.
14. BMCH 3000 Biomechanical Statics & Dynamics, 3 hrs.
15. ECON 8330 Data Analysis from Scratch, 3 hrs.
16. ECON 8320 Tools for Data Analysis, 3 hrs.

**Revised Courses**

1. ENVN 3670 Introduction to Sustainable Landscape Design Laboratory, 1 hr.
2. ART 3710 Egyptian Art, 3 hrs.
3. ART 3720 Greek Art, 3 hrs.
4. ART 3730 Etruscan & Roman Art, 3 hrs.
5. ART 3750 American Art, 3 hrs.

**Course Syllabi Description/Prerequisites:**

1. **CACT 8060 Topics in Critical and Creative Thinking, 3 hrs.**

**Description**: This is a course on selected topics offered on a one-time or occasional basis. The course may be repeated as long as the topic is different each time. May be cross listed with other departments when topics are appropriate to other departments. A complete topics syllabus will be available on file in the Office of the Master of Arts in Critical and Creative Thinking program.

**Prerequisites:** Graduate standing.

1. **SOWK 4050 Ethnic Diversity and Social Work Practice, 3 hrs.**

**Description**: This course focuses on effective generalist social work practice with clients of ethnic diversity.

**Prerequisites:** Undergraduate: BSSW degree students only.

Graduate: MSW degree students only.

1. **COUN 8630 Foundations and Issues in Secondary School Counseling, 3 hrs.**

**Description**: This course is designed to introduce the history, current ASCA (American School Counselor Association) model, and the role of a professional school counselor; and to provide information on and practice with topics that are current and relevant to secondary school settings.

**Prerequisites:** Admission to the Graduate College and/or the Counseling Department.

1. **COUN 8740 School Counseling Groups, 3 hrs.**

**Description:** This course is designed to provide the school counselor candidate with a focused study of small group counseling and enrichment programs in schools.

**Prerequisites:** Admission to graduate study in counseling, COUN 8030 or permission.

1. **MKT 4220 Global Strategic Account Management, 3 hrs.**

**Description**: Throughout this course, the management of strategic account programs at national, multi-country, and global levels will be addressed. The primary focus of the curriculum is on the critical success factors for driving revenue, sustainable long term-growth and profitability with a base of core strategic buyers.

**Prerequisites:** Senior or graduate student standing and permission of the instructor

1. **COUN 8700 Child and Adolescent Counseling, 3 hrs.**

**Description**: This course is an introduction to counseling children and adolescents and will examine the theories, techniques, professional settings, cultural, and ethical/legal issues associated with counseling children and adolescents in a diverse society. Although diagnosis of mental disorders will be discussed, the course is designed to build competencies in counseling children and adolescents, with specific attention to social, developmental, and behavioral issues across professional settings.

**Prerequisites:** COUN 8000 (CMHC) or COUN 8630 (School Counseling)

COUN 8030

COUN 8200

COUN 8110

COUN 8040

1. **COUN 8800 Clinical Mental Health Counseling, 3 hrs.**

**Description**: This course is an introduction to the specialization of clinical mental health counseling. The course content examines the historical, philosophical, educational, ethical, and psychological concepts and foundations of clinical mental health counseling. Additionally, the course will explore key public and private professional settings and programs within the clinical mental health paradigm, professional advocacy and leadership, and the personal and professional skills and traits expected of professional counselors.

**Prerequisites:** COUN 8000: Introduction to Counseling

COUN 8030: Counseling Practices

COUN 8200: Counseling Theory

COUN 8040: Professional & Ethical Practices

1. **IASC 4430 Quantum Computing and Cryptography, 3 hrs.**

**Description**: The course aims at understanding the exciting concepts behind quantum computing and quantum cryptography. The course will introduce the principles of qubits, superposition, entanglement, teleportation, measurement, quantum error correction, quantum algorithms such as quantum Fourier transformation, Shor’s algorithm and Grover’s algorithm, quantum key exchange, quantum encryption, and secure quantum channels that built using these principles. We will discuss the security definitions and protocols within the quantum realm. We will discuss what advantages quantum computing and cryptography offers compared to classical computing and cryptography and limitations thereof. It will cover the integration of quantum cryptography into existing public key infrastructure. The students will come out with a working understanding of the field of quantum computing and quantum cryptography. During the course students will also implement several of the quantum algorithms.

**Prerequisites:** Co-requisites: IASC 3570 Cryptography or CSCI 4560 Number Theory & Cryptography or Instructor permission

1. **IASC 4440 Industrial Control System Security, 3 hrs.**

**Description**: The objective of this course is to research vulnerabilities into, and provide guidance for securing, industrial control systems (ICS). ICS is a general term that encompasses several types of control systems, including supervisory control and data acquisition (SCADA) systems, distributed control systems (DCS), and other control system items such as Programmable Logic Controllers (PLC). The student will learn to identify network and device vulnerabilities and potential countermeasures to these weaknesses.

**Prerequisites:** CSCI 3550 (Communications Networks)

1. **IASC 8450 Applied Cryptography, 3 hrs.**

**Description**: In this course we will implement stream and block ciphers in different modes, public key algorithms, hash functions, message authentication codes, random number generators, etc. Along the way we will also explore weaknesses of these algorithms and implement well-known attacks on them. We will also solve crypto challenges and puzzles. This is a hand-on course and will require programming proficiency. The preferred language will be Python; you can, however, use other object oriented languages.

**Prerequisites:** CSCI 2030, CSCI 3320, IASC 3570 or equivalent or Instructor Permission

1. **IASC 8000 CAE-Cyber Operations Completion Certificate 0 hrs.**

**Description**: This course is utilized to provide a specific designation for students that have completed the Center of Academic Excellence – Cyber Operations coursework. It is a zero credit hour class used to designate the completion of this focus area in the cybersecurity curriculum.

**Prerequisites:** Instructor Permission. In the case of 8000 the program committee will work with the undergraduate advisors to ascertain that the student has fulfilled all of the requirements appropriate for this designation. Assuming the student has fulfilled all of the necessary requirements (or will within the last semester of schooling) they will be allowed to register for this class.

1. **ANTH 4940 Archaeological Field Methods, 3 hrs.**

**Description**: This course introduces students to the field methods of scientific archaeology. These field methods include map reading, use of satellite and aerial photographs, instrument survey and mapping, pedestrian survey or reconnaissance, site survey data collection, identification of artifacts (stone tools, ceramics, etc.) and ecofacts (animal remains, macrobotanicals, etc.), systematic artifact collection and documentation, soil probes and coring methods, GPS-based mapping, excavation methods, and data recording. Additional topics include laboratory methods (artifact and ecofact analysis, interpretation, and documentation). This field course ultimately focuses upon the use of empirical data to test or evaluate our interpretations of past human behavior.

**Prerequisites:** Anthropology 1050 and Junior standing.

1. **BMCH 2200 Analytical Methods in Biomechanics, 3 hrs.**

**Description**: Through this course, students will learn the fundamentals of programming and problem solving for biomechanics with Matlab and Excel. Students will also learn the attributes and uses of other programming languages.

**Prerequisites:** None.

1. **BMCH 3000 Biomechanical Statics & Dynamics, 3 hrs.**

**Description**: The study and exploration of the effect of forces on biological systems, mainly the human body, during static and dynamic situations.

**Prerequisites:** PHYS 2100, PHYS 1154

1. **ECON 8330 Data Analysis from Scratch, 3 hrs.**

**Description**: Econometrics is routinely taught as an application class – using a ‘black box’ like Stata or SAS to perform calculations. This class takes a different approach. Using the Python programming language, we build all estimators from scratch. Additionally, we introduce numerous non-parametric and simulation techniques. This approach to econometrics results in a stronger understanding of statistical assumptions and methods, a better understanding of when a method is appropriate, and stronger programming techniques. Furthermore, a deeper understanding of the underlying mechanics provides the student the ability to program custom procedures not already built into popular software packages.

**Prerequisites:** Either:

1. A multivariate or regression analysis course such as ECON 8300, ISQA 9130 or STAT 8436

2. A programming class such as ECON 8320 or equivalent programming experience

Or:

1. Instructor approval
2. **ECON 8320 Tools for Data Analysis, 3 hrs.**

**Description**: The course will cover basic principles of programming languages, as well as libraries useful in collecting, cleaning and analyzing data to answer research questions. The course will utilize basic Economic principles and Econometric methods as inspiration for assignments and projects throughout the duration of the course, and will do so in a way that is accessible to non-Economists. This course is intended to introduce the student to the Python programming language as a tool for conducting data analysis. While the course uses Python, the student should be able to move to other languages frequently used in data analysis using the principles taught in this course.

**Prerequisites:** ECON 2200 or BSAD 8150 (or equivalent); BSAD 2130 or equivalent; or instructor approval.

**Revised Courses**

1. **ENVN 3670 Introduction to Sustainable Landscape Design Laboratory, 1 hr. (converting course from UNL to UNO)**

**Description**: This course covers the basic use of graphic techniques for landscape design; the analysis and process for conceptual design of the landscape; studio problems in value, texture, form and space; and the exploration of the design characteristics of plants, landform, and structures supporting sustainable landscape design and management principles.

**Prerequisites:** ENVN 3660 or BIOL 3670 (prior or concurrent).

1. **ART 3710 Egyptian Art, 3 hrs. (renumbering from 2710)**

**Description**: This course is an in-depth examination of ancient Egyptian culture through its art and architecture. Lab fee required.

**Prerequisites:** ART 2050 or permission of instructor.

1. **ART 3720 Greek Art, 3 hrs. (renumbering from 2720)**

**Description**: This course will immerse students in the art and culture of ancient Greece. Lab fee required.

**Prerequisites:** ART 2050 or permission.

1. **ART 3730 Etruscan & Roman Art, 3 hrs. (renumbering from 2730)**

**Description**: This course provides an in-depth investigation of the art and culture of Etruscan and Roman civilizations.

**Prerequisites:** 2050 or permission. Lab fee required.

1. **ART 3750 American Art, 3 hrs. (renumbering from 2850)**

**Description**: This course provides a study of art, architecture, and material culture produced in the United States approached through varied contexts (artistic, religious, political, economic, etc.) and methodologies. Lab fee required.

**Prerequisites:** Completion of Art 2050 & Art 2060. For non-majors, permission of the instructor is required.

**Meeting Dates 8:00-9:30, Eppley Administration Building 202:**

Friday, January 13, 2017

Friday, February 10, 2017

Friday, March 10, 2017

Friday, April 14, 2017

Friday, May 12, 2017