Academic Affairs
Midwestern State University

The Academic Council met Thursday, September 19, 2013, in the Dillard College of Business Administration, Priddy Conference Room. Voting members in attendance were:

Dr. Matthew Capps, Dean, West College of Education
Dr. Laura Fidelie, Faculty Senate Vice Chair
Dr. Deborah Garrison, Associate Vice President for Academic Affairs and Dean of the Graduate School
Ms. Laura Jefferson, Interim Dean, Fain College of Fine Arts
Dr. James Johnston, Dean, College of Health Sciences and Human Services
Dr. Lynn Little, Dean, College of Science and Mathematics
Dr. Terry Patton, Dean, Dillard College of Business Administration
Ms. Leona Sandiford, Student Government Association Vice President
Dr. Sam Watson, Dean, Prothro-Yeager College of Humanities and Social Sciences

Other attendees:

Dr. Robert Clark, Vice President for Administration and Institutional Effectiveness
Ms. Peri Griner, University Cashier, Business Office
Ms. Darla Inglish, Registrar
Dr. Clara Latham, University Librarian
Ms. Juliana Lehman-Felts, Coordinator, Honors Program
Ms. Kathy Pennartz-Browning, Director, Financial Aid
Dr. David Rankin, Chair, Department of English
Dr. Magaly Rincón-Zachary, Director of Undergraduate Research
Ms. Leah Vineyard, Interim Director, Admissions
Ms. Michelle Wells, Associate Director, Financial Aid

Dr. Betty Hill Stewart, Provost and Vice President for Academic Affairs, presided and the meeting began at 2:05 p.m.

Approval of Minutes

Dr. Stewart called for a motion to approve the August minutes of the Academic Council meeting. *Dr. Little made a motion that the minutes be adopted; Dr. Johnston seconded and the motion was unanimously adopted. (closed)*

Old Business

There being no Old Business to discuss, the Council moved on to New Business.

New Business

1. Dr. Bob Clark presented information on the new Winter Mini-Term. It will consist of on-line courses and will begin December 16, 2013, and end on January 10, 2014. Payment for the mini-term is due December 16 and the deadline to drop is December 20. Course offerings at this time include ART 1413 Art Appreciation, CMPS 1013 Computer Concepts and Applications, ECON 1333 General Economics, ENGL 2113 Composition Skills, THEA 1503 Theatre Appreciation, SOCL 1133 Introductory Sociology, and PHYS 1533 Descriptive Astronomy. (*Information item; no vote required.*)

2. Ms. Inglish distributed a handout with proposed dates for the 2014-2016 Academic Calendar. Dr. Capps made a motion to adopt the calendar; Dr. Little seconded, and the motion was adopted. *(closed)*

> The 2014-2016 Academic Calendar dates will be released once they have been approved by the Administrative Council and the MSU Board of Regents.

3. Dr. Rincón-Zachary proposed a change of course number and lecture/lab hours for the Undergraduate Research course MWSU 4001 Creative Inquiry: Interdisciplinary Thinking, effective Fall 2014. Dr. Watson made a motion to adopt the changes to MWSU 4001; Dr. Little seconded, and the motion was adopted. *(closed)*

> **MWSU ~~4001.~~ 4000. Creative Inquiry: Interdisciplinary Thinking**
> Seminar ~~3(3-0)~~ 0(0-0)

4. Ms. Jefferson made a motion to adopt the following undergraduate course/catalog changes in Art. The courses are part of the British Studies Program and will count 6 semester credit hours in the student's major. Dr. Patton seconded, and the motion was adopted. *(closed)*

New Course Additions, effective Summer 2014

> **ART 4743. Graphic Design with an International Perspective**
> Prerequisites: ART 1113, 1333
> Description: This is the lecture component of the class where students learn the historical and contemporary contributions that London has provided to the field of graphic design. Students will visit museums, design firms, and receive lectures from some of London's greatest designers in order to broaden their perspective on the design world. Each student will create a design campaign that will be portfolio and exhibition worthy by the end of this course. This course is part of the British Studies Program.
> Lecture 3(3-0)
> Course Objectives and/or additional information:
> - Students taking this course will learn the history of graphic design in London.
> - Students will be exposed to the contemporary design culture that London has to offer.
> - Presentations will be given from some of London's top graphic designers.
> - Students will visit design firms, museums, and take a historic tour throughout London.
> - Students will create a comprehensive design campaign.

> **ART4753. Graphic Design with an International Perspective**
> Prerequisites: ART 1113, 1333

Description: This is the studio component of the class where students learn the historical and contemporary contributions that London has provided to the field of graphic design. Students will visit museums, design firms, and receive lectures from some of London's greatest designers in order to broaden their perspective on the design world. Each student will create a design campaign that will be portfolio and exhibition worthy by the end of this course. This course is part of the British Studies Program.
Lab/Studio 3(0-6)
Course Objectives and/or additional information:

- Students taking this course will learn the history of graphic design in London.
- Students will be exposed to the contemporary design culture that London has to offer.
- Presentations will be given from some of London's top graphic designers.
- Students will visit design firms, museums, and take a historic tour throughout London.
- Students will create a comprehensive design campaign

5. Ms. Jefferson made a motion to adopt the following undergraduate course/catalog change in Mass Communication. Dr. Little seconded, and the motion was adopted. *(closed)*

New Course Addition, effective Fall 2014

SPCH 1103. Introduction to Communication

Description: Provides introduction to communication, specifically in writing and speech. Core curriculum course to be dual-listed and taught with ENGL 1103.
Lecture 3(3-0)
Course Objectives and/or additional information:

- Engage in critical thinking about personal experiences and current issues
- Use written and oral expression to convey their ideas regarding personal experiences and current issues
- Apply instruction or rhetorical awareness to make decisions about how best to convey their messages to the intended audience(s)
- Demonstrate proficiency with standard written English
- Demonstrate proficiency with the spoken word

Note: This is a proposed new core course and will be cross-listed with ENGL 1103 Introduction to Communication. It is a two discipline split-course and the classes will switch out every two weeks.

6. Dr. Johnston made a motion to adopt the following undergraduate course/catalog changes in Dental Hygiene. Dr. Fidelie seconded, and the motion was adopted. *(closed)*

In order to permit the BS in Dental Hygiene degree plan to meet the 120 hours maximum limit set by the Texas Coordinating Board and meet the University's proposed academic core the Dental Hygiene Department is requesting approval for the following revisions to its current degree plan. These revisions will result in the BS in Dental Hygiene degree plan totaling 120 hours and enable the curriculum to better meet current accreditation standards.

The Dental Hygiene Department is seeking approval to:

1. Drop the specific 3 hour Speech prerequisite as this content will be included in the English/Speech hybrid core course "Introduction to Communication".

The removal of the specific 3 hour speech prerequisite will reduce the total hours for a BS in Dental Hygiene to 119. We would like to use the additional hour (=120 hours total) to increase DNHY 3003 (Dental Hygiene II) from three to four credit hours (4-0)

with the start of the spring 2014 semester. The additional time is required in order to cover content without infringing on DNHY 3005 (Clinical Practice 2) contact time.

2. hange of course number and lecture/lab hours, effective Fall 2014
DNHY ~~3003~~ **3004**. Dental Hygiene II
Lecture ~~3(3-0)~~ **4(4-0)**

From Dental Hygiene Degree Plan (2012-13)

Freshman Year: Term One			Freshman Year: Term Two		
Course	Description	Hrs	Course	Description	Hrs
MATH	College Level	3	BIOL 1134	Anatomy & Physiology I	4
ENGL 1113	Rhetoric & Comp I	3	ENGL 1123	Rhetoric & Comp II	3
CMPS 1013	Computer Concepts &Apps	3	BIOL 1333	Nutrition	3
PSYC 1103	General Psychology	3	CHEM 1203	ORG/Biochemistry	3
SOCL 1133	Introduction to Sociology	3	EXPH ACT	PE Activity	1
Total Hours: [15]			Total Hours: [14]		
Sophomore Year: Term Three			Sophomore Year: Term Four		
Course	Description	Hrs	Course	Description	Hrs
BIOL 1234	Anatomy & Physiology II	4	BIOL 2144	Microbiology	4
POLS 1333	American Government	3	POLS 1433	American Government	3
HIST 1133	History to 1865	3	HIST 1233	History from 1865	3
HUMN ORE	Humanities Core	3	EXPH ACT	PE ACTIVITY CLASS	1
SPCH 1133 OR SPCH 1233 OR SPEECH 2423	Fund of Speech Voice & Diction Interpersonal Communication	3	FINE ART CORE	Fine Arts Core Class	3
Total Hours: [16]			**Total Hours: [14]**		
Junior Year: Term One in DH Program			Junior Year: Term Two in DH Program		
Course	Description	Hrs	Course	Description	Hrs
DNHY 3002	Oral Radiology l	2	DNHY 3003	Dental Hygiene II	3
DNHY 3022	Histology	2	DNHY 3005	Clinical Practice II	5
DNHY 3013	Dental Materials	3	DNHY 3023	Periodontology	3
DNHY 3124	Head, Neck & Dental Anatomy	4	DNHY 33102	Oral Radiology II	2
DNHY 3014	Dental Hygiene I	4	DNHY 4103	Pharmacology	3
DNHY 3114	Clinical Practice I	4			
Total Hours: [19]			Total Hours: [16]		
Senior Year: Term Three in DH Program			Senior Year: Term Four in DH Program		
Course	Description	Hrs	Course	Description	Hrs
DNHY 4003	Pathology	3	DNHY 4022	Dental Public Health	2
DNHY 4013	Dental Health Education	3	DNHY 4032	Dental Hygiene IV	2
DNHY 4018	Clinical Practice III	8	DNHY 4028	Clinical Practice IV	8
DNHY 4023	Dental Hygiene III	3			
Total Hours: [17]			Total Hours: [12]		

Total= 123 Hours

Dental Hygiene Degree Plan
State Mandated Core Curriculum Revisions (2014-15)

Freshman Year: Term One			Freshman Year: Term Two		
Course	Description	Hrs	Course	Description	Hrs
MATH 1233 or 1053 or 1203	**College Level**	**3**	**Life Sciences BIOL 1133**	**Anatomy & Physiology I**	**3**
ENGL Engl/Speech Hybrid)	**Intro to Communication**	**3**	**ENGL 1123**	**Research & Writing**	**3**
Social & Behav Sciences PSYC 1103	**General Psychology**	**3**	BIOL 1333/EXPH2333	Nutrition	3
INQUIRY & CREATIVITY SCIE 2103 ENGL 2123 MCOM WEB	**Interdisc. Science Research Visuals & Infographics Web Site Design**	**3**	Social & Behav Sciences SOCL 1133	Intro to Sociology	3
CHEM 1303	Gen ORG/Biochemistry	3	**CREATIVE ARTS ART 1413 MCOM 2213 MUSC 1033 THEA 1503 THEA 2423 MUSC New**	**Art Appreciation Appreciation of Film Music Appreciation Appreciation of Theater Dramatic Analysis Intro to Western &World Music**	**3**
	Total Hours: [15]			Total Hours: [15]	

Sophomore Year: Term Three			Sophomore Year: Term Four		
Course	Description	Hrs	Course	Description	Hrs
Life Sciences BIOL 1233	**Anatomy & Physiology II**	**3**	BIOL 2144	Microbiology	4
POLS 1333	**American Government**	**3**	**POLS 1433**	**American Government**	**3**
HIST 1133	**History to 1865**	**3**	**HIST 1233**	**History from 1865**	**3**
CULTURAL & GLOBAL UNDERSTANDING MCOM New MCOM 1233 LAST 2503 POLD/WGST 2503 MUSC New	**The Internet & Society Intro to Mass Communication Intro to Latin American Studies Women's & Gender Studies Western & World Music**	**3**	**LANG, PHIL & CULTURE HIST 1333 / HIST1433 ENG 2413 / 2613 PHIL 1033 / 2033 ?? ??**	**Western Civ. I / II World Lit /Survey of Amer. Lit Prim Concerns of Phil /Ethics Foreign Lang Humanities**	**3**
	Total Hours: [12]			**Total Hours: [13]**	

Junior Year: Term One in DH Program			Junior Year: Term Two in DH Program		
Course	Description	Hrs	Course	Description	Hrs
DNHY 3002	Oral Radiology l	2	**DNHY 3004**	Dental Hygiene II	**4**

DNHY 3022	Histology	2	DNHY 3005	Clinical Practice II	5
DNHY 3013	Dental Materials	3	DNHY 3023	Periodontology	3
DNHY 3124	Head, Neck & Dental Anatomy	4	DNHY 33102	Oral Radiology II	2
DNHY 3014	Dental Hygiene I	4	DNHY 4103	Pharmacology	3
DNHY 3114	Clinical Practice I	4			
Total Hours: [19]			Total Hours: [17]		
Senior Year: Term Three in DH Program			Senior Year: Term Four in DH Program		
Course	Description	Hrs	Course	Description	Hrs
DNHY 4003	Pathology	3	DNHY 4022	Dental Public Health	2
DNHY 4013	Dental Health Education	3	DNHY 4032	Dental Hygiene IV	2
DNHY 4018	Clinical Practice III	8	DNHY 4028	Clinical Practice IV	8
DNHY 4023	Dental Hygiene III	3			
Total Hours: [17]			**Total Hours: [12]**		

Core (42 Hrs) + DH Prerequisites (13 Hrs) = **55 Hrs Prerequisites**
Add 1 Hr to DH2 = **65 Hrs Major**
120

7. Dr. Johnston made a motion to adopt the following undergraduate course/catalog changes in Respiratory Care. Dr. Little seconded, and the motion was adopted. *(closed)*

In order to accommodate growth in the RRT-BSRC program the respiratory care program is requesting approval to add an additional course to the curriculum (RESP 4133 Developing Leadership Capabilities in Respiratory Care). This course will provide online students with additional options to meet the degree requirements. With the new 120 hours maximum limit set by the Texas Coordinating Board and University residency requirements students in the online RRT-BSRC program will need to take 30 upper level hours.

RRT-BSRC students may choose any combination of the following courses:

Course	**Credit**
Adult Critical Care	3
Neonatal & Pediatric Respiratory Care	3
Respiratory Pathophysiology	3
Data Analysis	3
Education Theory & Practice	3
Educational-Admin. Concepts	3
Advance Practice Application	3
Pulmonary Diagnostics	3
Research & Respiratory Care	3
Management of Health Care Services	3

*Educational-Admin Concepts and Advanced Practice Applications may be taken twice.

New Course Addition, effective Spring 2014

RESP 4133. Developing Leadership Capabilities in Respiratory Care

Description: The focus of this lecture course is to introduce students to leadership theories in healthcare. This course provides a foundation for future healthcare leaders. Students are exposed to a series of alternative leadership perspectives, including collaborative models. Topics include: defining leadership, interdisciplinary and interprofessional working, communication and leadership, and leadership for change. Lecture 3(3-0)

Course Objectives and/or additional information:

- Define leadership
- Recognize the importance of clinical leaders in clinical practice
- Analyze and compare leadership theories
- Define concepts of interdisciplinary leadership teams
- Identify one's own strengths and weakness as a leader or future leader
- Apply theoretical leadership concepts and prepare solutions in the healthcare setting

8. Dr. Watson made a motion to adopt the proposal for a New Course Based Option (NCBO) in English for TSI students. Dr. Johnston seconded, and the motion was adopted. *(closed)*

Proposal for *Non-Course Based Option (NCBO) for TSI Students

Beginning December 9, 2013, a student will be eligible to take the Reading NCBO if he or she scores between 348 and 350 on the TSI Assessment. A student will be eligible to take the Writing NCBO if he or she scores a 4 on the writing portion and 360-362 on the multiple-choice portion.

Reading

A Reading NCBO eligible student will have 5 weeks to complete ENGL 0130. This online "non-course" guides the student through reading modules. Each module includes instruction, practice, and assessment. A student must score 80% or better on one module before moving to the next. Upon completion of ENGL 0130, the student will once again take the reading section of the TSI Assessment in an attempt to earn 351 or better in reading. A student must complete this retake of the reading section of the TSI Assessment prior to the first day of any semester in which ENGL 1013 is offered. Any student who attempts ENGL 0130 but has not earned a passing reading score on the TSI Assessment prior to the first day of class of any semester in which ENGL 1013 is offered must take ENGL 1013.

ENGL 0130 will help the student to "locate explicit textual information, draw complex inferences, analyze and evaluate the information within and across texts of varying lengths, and use effective reading strategies to determine a written work's purpose and intended audience." ("Texas College and Career Readiness Standards")

Writing

A Writing NCBO eligible student will have 5 weeks to complete ENGL 0030. This online "non-course" guides the student through writing modules. Each module includes instruction, practice, and assessment. A student must score 80% or better on one module before moving to the next. Upon completion of ENGL 0030, the student will once again take the writing section of the TSI Assessment in an attempt to earn 5 on the essay

portion or 4 on the essay portion and 363 or better on the multiple choice portion of the writing section. A student must complete this retake of the writing section of the TSI Assessment prior to the first day of any semester in which ENGL 1003 is offered. Any student who attempts ENGL 0030 but has not earned a passing writing score on the TSI Assessment prior to the first day of class of any semester in which ENGL 1003 is offered must take ENGL 1003.

ENGL 0030 will help the student "compose a variety of texts that demonstrate clear focus, the logical development of ideas in well-organized paragraphs, and the use of appropriate language that advances the author's purpose." ("Texas College and Career Readiness Standards")

Note: Beginning Spring 2014, ENGL 1013 and ENGL 1003 will be replaced by ENGL 1014, Integrated Reading and Writing.

Cost

Pearson Publishing is developing reading and writing NCBOs in answer to the Texas Success Initiative. The price of an NCBO is $11.25 per student, which will give him or her access to ENGL 0130 or ENGL 0300 for five weeks; therefore, once enrolled in one of these NCBOs, a student must pass his or her second attempt at the TSI Assessment prior to the end of the five weeks.

That $11.25 gives the student online access but does not pay the state-required **instructor of record who, according to THECB, is "responsible for

- determining the best NCBO plan for the student
- assuring the student meets the curricular requirements of the NCBO
- regular monitoring of the progress of the student
- assuring that the student is appropriately assessed/evaluated upon NCBO completion
- assigning and reporting the student's final grade based on IHE policy
- helping the student register for the next step (i.e., course or intervention)."

The Department of English has proposed that each student be charged an administration fee of $150 to pay the instructor of record. The College of Humanities and Social Sciences concurs.

"Non-course-based developmental education includes developmental education interventions that use learning approaches that, compared to traditional lecture-only classes, more effectively and efficiently prepare students for college-level work. These interventions must be overseen by an instructor of record; must not fit traditional course frameworks for contact hours; and cannot include advising or learning support activities such as tutoring, supplemental instruction, or labs connected to traditional courses where a student incurs tuition costs."
(Rider 50 and 59 Reports, January 2011, p. 16)

9. Dr. Watson made a motion to adopt the following undergraduate course/catalog change in English. Dr. Johnston seconded, and the motion was adopted. *(closed)*

New Course Additions, effective Fall 2014

ENGL 1103. Introduction to Communication

Description: Provides introduction to communication, specifically in writing and speech. Core curriculum course to be dual-listed and taught with SPCH 1103.

Lecture 3(3-0)

Course Objectives and/or additional information:

- Engage in critical thinking about personal experiences and current issues
- Use written and oral expression to convey their ideas regarding personal experiences and current issues
- Apply instruction or rhetorical awareness to make decisions about how best to convey their messages to the intended audience(s)
- Demonstrate proficiency with standard written English
- Demonstrate proficiency with the spoken word

Note: This is a proposed new core course and will be cross-listed with SPCH 1103 Introduction to Communication. It is a two discipline split-course and the classes will switch out every two weeks.

10. Dr. Watson made a motion to adopt the following undergraduate course/catalog change in History. Ms. Jefferson seconded, and the motion was adopted. *(closed)*

New Course Addition, effective Fall 2014

HIST 4013. History Practicum

Prerequisites: Six hours of History or consent of the chair.

Description: A course in which a student or a group of students complete a project in local, public, or archival history. May be repeated for credit.

Practicum 3

Course Objectives and/or additional information:

- Rationale for the course: students who have consistently expressed interest in local, public, archival history, and museum administration will have this option whereby they may have the opportunity to engage in single or group projects that have been adapted for them to receive academic credit in a variety of subjects or topics.

11. Dr. Watson made a motion to adopt the following undergraduate course/catalog change in Political Science. Dr. Fidelie seconded, and the motion was adopted. *(closed)*

New Course Addition, effective Spring 2014

POLS 4543. Feminist Political Theory

Prerequisites: Six hours of Political Science

Description: This course examines women and gender in society through the lens of feminist political theories and movements. It explores the connection between social movements and theory and critically analyzes the intersection of systems of inequality in the lives of women and the feminist project. It examines the complexities of patriarchy and uses feminist theories to explore the conceptions of equality and dismantling systems of discrimination and oppression that feminist theories produce.

Lecture 3(3-0)

Course Objectives and/or additional information:

- Acquire a broad knowledge base of American politics, comparative politics, international relations, and political theory

- Develop critical thinking skills
- Develop effective communication skills
- Promote individual intellectual and social development

12. Dr. Watson made a motion to adopt the following undergraduate course/catalog changes in Political Science. These interdisciplinary courses are being added to the new core curriculum. Dr. Capps seconded, and the motion was adopted. *(closed)*

New Course Additions, effective Spring 2014

LATS 2503. Introduction to Latin American Studies

Description: Provides an introduction to the culture and society of Latin America through an examination of the themes and problems that influence contemporary Latin America. Interdisciplinary in approach, this course utilizes lectures, films, readings, and artistic exhibitions, to explore the themes of multiethnic cultural expressions, revolution and resistance, democratization and human rights, indigenous identity, and sustainable development in terms of the major political, social, and cultural challenges facing the region today.

Lecture 3(3-0)

Course Objectives and/or additional information:

- Develop critical thinking skills
- Develop effective communication skills
- Promote personal responsibility
- Promote social responsibility

WGST 2503. Introduction to Women's and Gender Studies

Description: To provide an introduction to the study of gender in society. It examines issues of women, gender, and sex, from an interdisciplinary perspective. This course will combine interdisciplinary scholarship, court cases, film, lecture, and class discussion in order to help students develop a critical eye for examining the social, political, and cultural constructions of gender.

Lecture 3(3-0)

Course Objectives and/or additional information:

- Develop critical thinking skills
- Develop effective communication skills
- Promote personal responsibility
- Promote social responsibility

13. Dr. Little made a motion to adopt the following undergraduate course/catalog changes in Geosciences. Dr. Fidelie seconded, and the motion was adopted. *(closed)*

New Course Additions, effective Spring 2014

GEOS 3424. Geology of the Solar System

Prerequisites: GEOS 1134 or the approval of the instructor. GEOS 3234 is recommended but not required.

Description: This class features comparative geology of the terrestrial (Mars, Mercury, Venus, and Earth) and jovian planets (Jupiter, Saturn, Uranus, Neptune) and their associated moons. The class emphasizes the development of the solar system and how the geological observations we make today inform us of the past. Additional topics

include: sedimentary rocks on Mars, impact cratering, volcanism, tectonism, geomorphology, remote sensing, and unmanned space exploration.
Lecture and Lab 4(3-3)
Course Objectives and/or additional information:

- Apply scientific methods of understanding to the history of the solar system and associated processes like volcanology, crater development, orbital dynamics, and tectonics.
- Relate change through time to underlying geologic variables that predict and explain planetary surface processes and the current distribution of elements, minerals, and orbital bodies in the solar system.
- Develop critical thinking skills that allow students to evaluate scientific hypotheses related to claims about solar system processes (e.g., the origin of the Moon, Martian lava tubes, etc.)
- Apply data analysis techniques and interpretation on remotely gathered planetary data (crater density, spectroscopic and thermal emissions, lunar mineralogy, aerial photographs, etc.)
- Explain the major scientific events in planetary geology and how these observations have revolutionized our understanding of the origin of the Earth and the solar system.
- Understand how surface processes (eolian, volcanic, fluvial) influence the geomorphology and regolith development of terrestrial planetary bodies, and how the atmospheric chemistry of Jovian worlds explains their climate and weather systems
- Characterize the mineralogy and petrology of other planetary bodies and understand the implications for geology on Earth.
- Understand the use of geologic and biologic analogues in studies that characterize the physical and chemical environments or other planets and their potential for harboring life.

GEOS 3533. Solid Earth and Exploration Geophysics
Prerequisites: GEOS 1134 and either PHYS 1244 or PHYS 2644; or consent of instructor
Description: The course provides a thorough introduction to solid Earth geophysics and exploration geophysics. Includes the theory and application of various geophysical methods including seismic, gravity, electrical, and magnetic methods to understanding the shallow and deep structure of the Earth and integration of geophysical data with laboratory data including high pressures and high temperature mineralogical studies. The practical application of geophysical techniques to oil and gas exploration, mineral deposit exploration, and environmental assessment are also presented. Laboratory sessions focus on data acquisition planning, processing and particularly on practical interpretation of geophysical data for resource and environmental assessment. Course may include a half or full day field trip to gather a geophysical data set for processing and interpretation.
Lecture and Lab 3(3-1)
Course Objectives and/or additional information:

- The Earth is a dynamic planet and the Earth's temporal and spatial dynamics are best understood within the framework of plate tectonics.
- The essential aspects of elastic theory and seismic waves that enables seismic data to be used to characterize the shallow (crustal) and deep structure of the Earth.
- How seismic data is used to characterize ground movement caused by earthquakes
- How seismic, gravity, thermal, and rheological data together with high temperature and pressure mineralogical laboratory studies augment seismic characterization of the Earth's shallow and deep structure
- The physics of magnetism and its application to Earth materials including rock magnetism (local), geomagnetism (global), and paleomagnetism (historical)
- The application of paleomagnetic data to basic geological studies particularly sedimentology and stratigraphy including case histories
- How geophysical methods are used for oil and gas exploration and development from basin-wide appraisal to drilling individual wells

- Details about how seismic data is acquired and interpreted in the oil and gas industry for reservoir characterization and monitoring including 2D, 3D, and 4D reflection-based seismic methods, vertical seismic profiling (VSP), and active/passive surface and down-hole micro-seismic methods
- How geophysical methods are used for mineral deposit exploration and development
- How geophysical methods are used for geothermal resource appraisal and development
- How geophysical methods are used for environmental assessment and monitoring

GEOS 4533. Economic Geology

Prerequisites: GEOS 3234 and either CHEM 1143 or CHEM 1243 or approval of the instructor

Description: This course provides a thorough introduction to the main sub-fields of economic geology: metallic and non-metallic ore deposits, petroleum geology, coal geology, and building materials geology. Specific types of metallic and non-metallic ore deposits covered include porphyry-type copper deposits, hydrothermal gold, and silver deposits, massive sulfide copper, zinc, and silver deposits, Mississippi Valley type lead and zinc deposits, sedimentary iron deposits, weathering-related aluminum and nickel deposits, gold, diamond, and other heavy mineral placer deposits, phosphate, and evaporate-mineral deposits. The course will cover the various techniques used to understand metallic and non-metallic ore forming processes as well as discuss the relationship between plate tectonics and the spatial and temporal occurrence of metallic and non-metallic ore deposits. Practical aspects of mining, mining economics, and ore deposit exploration and evaluation will also be included. The course will provide an introduction to the formation of petroleum reservoirs and their exploitation, the formation of coal deposits and their exploitation, and the geology and exploitation of building materials such as sand, gravel, and quarried stone.

Lecture and Lab 3(2-2)

Course Objectives and/or additional information:

- What are the essential tools used to understand metallic and non-metallic ore deposit formation (such as geothermometry, geobarometry, isotopic studies, and other geochemical techniques) and how such tools are used
- History of ore deposit classification
- What are the important igneous ore-forming processes (e.g. partial melting and crystal fractionation, liquid immiscibility)
- Examples of igneous process-related ore deposits such as diamond-bearing kimberlites, chromium and platinum (PGE) ores of the Bushveld Complex (southern Africa), and the Sudbury (Canada) nickel, copper deposit
- What are the important magmatic-hydrothermal ore-forming processes (e.g. formation and movement of a magmatic aqueous phase in the igneous environment; deposition from a magmatic aqueous phase)
- Examples of magmatic-hydrothermal ore-forming process-related ore deposit examples such as pegmatites, porphyry-type copper, molybdenum, and tungsten deposits, epithermal gold and silver deposits, Cornwall (England) type tin, copper, zinc, lead deposits, and skarn deposits (tungsten)
- What are the important non-magmatic hydrothermal ore-forming processes (e.g. origin and movement of non-magmatic hydrothermal fluids, hydrothermal fluids/rock interaction, precipitation from hydrothermal fluids)
- Examples of non-magmatic hydrothermal ore-forming process-related ore deposits such as massive sulfide copper, zinc, and silver deposits (including “black smokers” as likely modern analog),

Mississippi Valley type lead and zinc deposits, Carlin-type gold deposits, roll-front uranium ores, and central Africa copper deposits

- What are the important sedimentary and surficial ore forming processes (e.g. mechanical or placer, chemical weathering, chemical precipitation, chemical sedimentation)
- Examples of sedimentary and surficial ore forming process-related ore deposits such as gold placers and other heavy mineral placers, nickel and bauxite (aluminum) laterites, ironstone and banded iron formation deposits, phosporites, and evaporites
- Ore deposition in a global, tectonic context and metallogeny through time (e.g. characteristic deposits in Archean, Proterozoic, and Phanerozoic-age rocks)
- Ore deposit sampling, evaluation, economics, and the basics of mining operations and mineral deposit economics
- The essential aspects of petroleum and natural gas reservoirs and their development/extraction
- The essentials of coal formation and extraction/mining
- An overview of the geology of common building materials such as sand, gravel, and quarried stone deposits
- The societal and environmental aspects of mineral, oil, natural gas, coal, and building materials development/extraction
- Employment opportunities and career paths in the various sub-fields of economic geology

Laboratory sessions focus on ore deposit mineral identification (hand sample, thin section, and polished sections of ores; wallrock alteration examples) from representative ore deposit types, ore deposit sampling and valuation, and mineral economics. High level exercises will also focus on petroleum, natural gas, and coal geology (basic/introductory well logs, subsurface mapping, and volumetrics).

14. Dr. Garrison made a motion to adopt the following graduate catalog change. Dr. Fidelie seconded, and the motion was adopted. *(closed)*

Reinstate the $25.00 Thesis Binding Fee, effective Fall 2013. The request to delete the fee was inadvertently deleted from the catalog earlier this year.

Changes to page 35 of the Graduate Catalog

DEGREE FEES:
Graduation Fee 20.00
~~Thesis Binding (per copy) ..... 25.00~~
Thesis Binding (per copy) 25.00

Additional Information

- Dr. Fidelie reported that the Faculty Senate (FS) agreed to support the administration of the HERI survey requested by Dr. Stewart in the fall. There will also be a faculty satisfaction survey administered by the Faculty Senate in the spring. The goal of the surveys is to improve communication between faculty and administrators. You will be hearing more information about them from the FS Senators. Faculty are asked to contact their college senator if there is anything they would like to see addressed by the Faculty Senate.
- Dr. Garrison reminded everyone that the TLRC was hosting a reception today at 4:30 p.m. in Dillard 189. Drs. Pamela Whitehouse, Stacia Miller, Tommye Hutson, and Janise McIntyre will present "Introduction to Google Documents: Supporting the Faculty

Role in Teaching and Research". The interactive session will address faculty use for Google Docs.

- Dr. Latham announced that the Music Series starts next in onight at 7 p.m. at the Wichita Falls Museum of Art at Midwestern State University. America's Music: Blues and Gospel
- Dr. Little reported that the College of Science and Mathematics is sponsoring the Geosciences and Environmental Science Colloquium Series this fall for the campus community. The series will open Thursday, September 26, at 5:30 p.m. in Bolin 312 with a presentation by Dr. Scott Meddaugh, Robert L. Bolin Distinguished Professor of Petroleum Geology at MSU. Dr. Meddaugh will present "Optimism in Reservoir Production Forecasting – Impact of Geology, Heterogeneity, Geostatistics, Reservoir Modeling, and Uncertainty." The Colloquium Series continues with guest speakers in October and November.

Adjournment

There being no other business, the meeting was adjourned at 2:28 p.m.

Respectfully submitted,

Deb Schulte, Assistant to the Provost