Registration: Interim

Interim 2010

Art

W40 An Introduction to Plein Air Painting. Working on location in and around Calvin College's Bunker Interpretive Center, this class emphasizes working poetically small, using as simple and portable a set up as possible. Each day the class starts with a discussion of what makes the landscape that we confront unique and how an artist best captures the feeling of each place. With sketch books students spend time developing small drawings which help solidify ideas and teach them to look more closely at what they are seeing. The rest of the time is spent working up small paintings and taking part in discussions about art, being an artist, and historical references. Student work (a minimum of fifteen paintings) provides the basis for evaluation. Students are expected to supply paint and materials. This course may fulfill an elective in the Studio Art major. Fee: \$300. *F. Speyers*. 8:30 a.m. to noon.

W80 French Art from Louis XIV to July 14th. Based in Paris, this course considers shifts in French society, art, architecture, and town planning that occurred between 1648 and 1848. The mid-seventeenth-century threats to monarchical power ironically laid the foundation for Louis XIV's absolute rule. The course addresses the migration of power from Versailles back to the city of Paris in the eighteenth century, the implications of Enlightenment agendas that eventually ignited the 1789 Revolution, and a legacy of contested social change that persisted into the nineteenth century. With these two centuries as a focal point, the course also includes a prologue covering events prior to the seventeenth century (particularly the importance of Paris during the Gothic period) and an epilogue looking forward to Impressionism, Post-Impressionism, and twentieth-century avant-garde movements. Major sites in Paris will include St-Denis, Notre-Dame, Sainte-Chapelle, the Musée de Louvre, the Musée de Cluny, the Hôtel des Invalides, the Jardin des Plantes, St-Sulpice, the Panthéon, La Madeleine, the Musée d'Orsay, the Musée Rodin, and Garnier's Opera House. Day trips will take in Chartres, Versailles, Fontainebleau, Chantilly, and Nancy. The first few days of the interim will be spent in Grand Rapids with discussion of readings and lectures outlining key themes of the course. The trip itself will last fourteen days. The course seeks to introduce students to 1) the landmarks of French art and architecture, 2) the history of the city of Paris, 3) French culture in the present, and 4) more generally how to approach travelling with cultural curiosity and intellectual rigor. Evaluations will be based on a test prior to the class's departure, a book review, a journal kept during the trip, and a final paper. This course may fulfill an elective in the Art History major. This course will fulfill the CCE requirement. Prerequisite: ARTH 102 or ARTH 237 or permission of the instructor. Course dates: January 6-26. Fee: \$3228. C. Hanson. Off campus.

W81 Used and Found Objects. This course investigates the technical and conceptual aspects of collage, assemblage, and image appropriation. Students will experiment with compositional problem-solving and produce both 2-dimensional and 3-dimensional work. All materials will be found or used, therefore students are required to bring to class materials they have previously purchased or collected. Supplemental materials will be provided as well. In addition to studio

work, students will learn about the art historical role of image and object appropriation, and will view and discuss contemporary artists who are working in this medium. This course may fulfill an elective in the Studio Art major. Prerequisite: ART 153. *M. Burrow*. 2:00 p.m. to 5:00 p.m.

ARTH 397 Methods in Art Historiography. A capstone seminar for all juniors and seniors majoring in art history, the course aimsto provide an understanding of the development of art history as an academic discipline and the major methodological approaches available for engaging art objects. Special attention is paid to connecting these methodological issues to the rest of the art history curriculum including the integration of ethics and faith commitments. In preparing students for future work in art history, the course strives to hone critical thinking skills and instill in students a richer appreciation of the stakes of intellectual positions. *H. Luttikhuizen*. 2:00 p.m. to 5:00 p.m.

Biology

W10 Tropical Ecosystems. Tropical ecosystems contain the highest concentration of Earth's biodiversity. Under the pressures of human population growth and resource use, tropical ecosystems are also experiencing the highest rates of biodiversity loss. How can successful conservation work occur such that the well-being of local people is not compromised or even promoted? And how can human-centered development work be done in such a way that the natural ecosystem to which humans belongs is not degraded? These are the fundamental questions we engage as we survey a variety of tropical habitats in Belize and Costa Rica including coral reefs, mangrove swamps, rain forests, alpine cloud forests and montane pinelands. Daily field trips will combine plant and animal identification, investigation of ecosystem processes and evaluation of human impact. Extended interaction with local inhabitants, including an overnight stay with villagers of Maya Centre in Belize will provide cross-cultural engagement credit for the course. Course evaluation will be based on a daily journal, active participation in course activities and evening discussions, as well as one written test. This course may fulfill an elective in the International Development Studies major. Course dates: January 6-26. Fee: \$3400. *R. Van Dragt, D. Warners*. Off campus.

W60 Clinical Neuroanatomy. The course attempts to link basic neural structure and function with neurological disorders. A concept of the three-dimensional structure of the brain and spinal cord is formed by studying the gross features of the intact human brain and spinal cord and progressing towards a greater macroscopic differentiation of structure by using representations of human material. The microscopic anatomy of the human brain and spinal cord is studied by using histological preparations. The course includes morning lectures and discussions with some additional time required in the afternoon to complete independent projects. Field trips to examine case studies and neuropathology are included. An assigned text is augmented with prepared handouts. A goal is that the student may gain a basic and clear understanding of the anatomy of the human nervous system with some understanding of its functional and clinical significance. Evaluation includes class participation, performance on exams, and an oral presentation. Prerequisites: BIOL 242 and consent of instructor. *P. Tigchelaar*. 8:30 a.m. to noon.

W61 Pathogens & Pandemic Potential. This course will introduce students to the topic of infectious diseases and their potential for catastrophic, worldwide outbreaks. Students will investigate historical pandemics and the biological, societal, and cultural factors that contributed to their emergence, transmission, devastation, and eventual control. With this understanding, students will evaluate local and global threats to health from pathogens that might be present in water, food, air, body fluids, various environments, and from deliberate activities such as bioterrorism. Students will gain an appreciation for the roles of governments, public health officials, and non-governmental agencies in predicting, monitoring, and responding to infectious disease outbreaks. Guest speakers will demonstrate the work and challenges of public health professionals and provide insight into career options. Activities will include field trips, laboratory exercises, and computer simulations. Students will be evaluated by quizzes and exams, independent activities, and class participation. Prerequisite: one college course in the natural sciences. *D. DeHeer, A. Hoogerwerf.* 8:30 a.m. to noon.

W62 Pathophysiology. Pathophysiology is the study of altered normal body function leading to a state of disease. This course presents the etiology, pathology, and prognosis of many human diseases. The structural and functional changes of diseases of the cardiovascular, gastrointestinal, hormonal, muscular, neural, renal, reproductive, and respiratory systems are covered using the classic organ system approach and case studies. Students will draw from physiology (how human body systems work) to learn about pathophysiology (how disease affects the normal operation of human systems). Students are evaluated on the basis of tests, a research paper, and a class presentation. Prerequisite: BIOL 206, 242, or 331. *R. Nyhof.* 2:00 p.m. to 5:00 p.m.

IDIS W12 Galapagos: Evolution's Diamonds or Ecuador's DisneyIslands. C. Blankespoor, S. Vander Linde.

IDIS W18 Chinese Medicine and Culture . A. Shen.

IDIS W46 Transforming Cambodia. L. De Rooy, D. Dornbos.

CANCELED IDIS W63 Science Wars: Controversies & Consensus. K. Grasman.

IDIS W64 West Michigan Food Systems. D. Koetje, H. Quemada.

IDIS W66 Milestones in Science & Religion: Italy & England. H. Bouma III.

Business

W11 Personal Finance. All of us have been forced to make decisions that impact our future economic well-being: What is the best type of loan to finance college? Can I afford to study abroad next semester? How will I pay for a car to get to my job? Personal finance is a specialized area of study focusing on individual and household financial decisions: How much should I save? How much should I spend? Do I need life and health insurance when I get out of college? What type would be best for me? Financial planning is a process of setting financial goals and organizing assets and making decisions to achieve these goals, in an environment of risk. This class will consider financial goals for Christians and will provide information and techniques to help students be good caretakers of what God entrusts to them. Topics covered will include: financial planning tools, goal setting and budgeting, tax planning, cash management, consumption and credit strategies, automobile and housing decisions, insurance needs, concepts of investing, and retirement planning. Class sessions will include lectures, presentations by finance professionals, video, and group discussion. Students will be evaluated on the basis of quizzes from text material, short papers presentations, and a final exam. *E. Van Der Heide, J. Voskuil.* 8:30 a.m. to noon.

W12 Professional Selling. Introduction of theory and practical application of professional selling techniques with a focus on customer needs, behavior, and relationship building. Students learn the theory, practice, and procedures of successful selling while examining the personal attributes necessary for a successful sales career. Student presentation skills are enhanced through developing and role-playing sales presentations. Evaluation will be based on five role-play presentations based on real products and/or a local company. *S. Van Oostenbrugge*. 8:30 a.m. to noon.

IDIS W10 Business & Engineering in China. A. Si, L. Van Drunen.

IDIS W29 Management of Innovation. P. Snyder, W. Wentzheimer.

Communication Arts & Sciences

W11 The Gospel of John as a Greek Tragedy. Many biblical scholars consider the Gospel of John to be a brilliant piece of writing that reshaped ancient Greek tragedy, a cultural form of writing that was nearly dead at the time of John's writing. Just prior to John's life, Greek tragedy had been considered one of the most valuable and important theatrical genres of antiquity. In this course, students study how John first understood the meaning of Greek tragedy and how, as an inspired writer, he sanctified the form through the writing of his gospel. The course focuses on the dynamic influence that the gospel of John has on our thinking. Students investigate the following questions: How did Greek tragedy influence the writing of the gospel? What does it mean to communicate the gospel truth through a poetic form? How does the artistic nature of the gospel shape our understanding of God's world and our relationship to God? Issues such as inspiration, message, myth, truth and identity will inform and provoke our discussions about the relationship between art and Bible. Students will learn the literary study of a biblical text, aesthetic theory as it relates to biblical studies and how the gospel of John relates to the art of tragedy. Student evaluation will be based on class participation and essays. *A. Visky.* 2:00 p.m. to 5:00 p.m.

W40 English Language by Rail. (MAY) Students explore the dialects of the English Language within a historical context. While in Great Britain, students travel by rail through different regions, collecting samples of English, Welsh, Scottish and Irish dialects and visiting important linguistic sites. By collecting samples from each of these regions, students learn about the history of English as it is spoken in the United Kingdom and Ireland as well as in the United States. Students must present on the features of the dialect samples they collect and write papers that summarize their readings, analyses of data, and interviews in each region. Students are evaluated on the quality of their papers, presentations, transcriptions and discussions. CCE credit is available with additional readings and journal assignments. This course may fulfill an elective in the Speech Pathology major. Course Dates: May 23-June 10. Fee: \$3996. *J. Vander Woude*. Off campus.

W42 Samurai & Western Films. This course compares Japanese samurai films with the American Western by investigating the way these two genres have developed samurai and gunslingers as the heroic embodiments of their respective cultures. Students watch a number of paired films from these genres (such as The Seven Samurai and The Magnificent Seven; Unforgiven and The Twilight Samurai), and discuss recurring themes that are closely tied to the myths of both countries. These themes include portrayals of law and order, gender roles, violence as an aesthetic form and redemptive myth, the role of the landscape as an embodiment of a culture, and representations of heroism and rebellion. Students will be evaluated on the basis of daily participation, class presentations, and a final exam. This course may fulfill an elective in the CAS major. *P. Goetz.* 2:00 p.m. to 5:00 p.m.

W60 Digital Cinematography. This class covers the advanced elements of digital cinematography for field narrative production. Through the viewing and analysis of specific case studies as well as practical work and sequenced assignments, students explore the following areas of cinematography: visualization, composition, lighting, and camera movement. Students are required to film and edit four scenes using of the technical principles developed during the

class, this includes among others: story boarding, interior and exterior lighting, dolly and Steady Cam operation, etc. Student evaluation is based on technical and creative proficiency in the different areas covered during the course, as exhibited by their film and editing projects. Prerequisite: CAS 190. *D. Garcia*. 6:00 p.m. to 9:00 p.m.

101 Oral Rhetoric. This course is intended for only those students in the Engineering program. Students examine the principles of oral and visual rhetoric, with an emphasis on guided practice in the development of effective speeches. The course leads students to understand the role of rhetoric in society, to think critically about rhetorical situations and practices, and to gain proficiency in the art of rhetoric. Students must complete the following: three graded presentations, three short un-graded presentations, a written critique paper, and an exam. *M. Steelman-Okenka*. 8:30 a.m. to noon or 2:00 p.m. to 5:00 p.m.

IDIS W31 Murder 101: Mystery & Detective Fiction. G. Pauley.

IDIS W33 The Human Voice. B. Macauley.

IDIS W52 The Cries of Wolves. M. Page.

Chemistry

IDIS W23 Better Cooking with Chemistry. D. Benson, C. Tatko

IDIS W49 Gender & Science. C. Anderson.

<u>IDIS W60 Fluorescence and Applications</u>. M. Muyskens.

Classics

W40 Homer Goes to Hollywood: Classical World in Film. This course examines how the medium of cinema has told, retold, and repackaged the ancient Greco-Roman myths with a particular eye to the following questions: How does the "Homeric Hero" compare to the "Hollywood Hero" and what does this comparison tell us about the cultures that produced them? At what points in the history of Hollywood does the fascination with the Classical world go in and out of favor? Why? What elements of ancient understandings of "divine agency" or "fate" do Hollywood retellings keep or discard? Why do films change fundamental details of the ancient texts? Has Hollywood transformed ancient myth into new, distinct, modern mythologies? What does "Rome" symbolize or stand in for in film? How has Christianity developed its own myths in relation to its experience with the Roman Empire? Class time is spent viewing and discussing several films as well as discussing readings of several seminal works from the Classical world. Students will be responsible for lively participation in class discussion, keeping a journal of reviews of both texts and films, and a (team) presentation of a film not viewed in class. *J. Winkle*. 2:00 p.m. to 5:00 p.m.

GREE 101 R Review Greek. This review is intended for all students who have completed Greek 101 and intend to continue in Greek 102. The course thoroughly reviews the elementary Attic Greek grammar which was presented in 101 and aims to insure that students maintain proficiency until 102 begins, since there is no review in the spring semester. No work outside of class is required in Greek 101-R, though optional exercises are available. Since the course is non-credit, it is typically taken in addition to a regular Interim class. Identical sessions of Greek 101-R are offered each morning and afternoon to avoid any conflict with regular Interim classes. Prerequisite: GREE 101. D. Noe. 11:00 a.m. to noon or 2:00 p.m. to 3:00 p.m.

IDIS W45 Italy: Ancient & Medieval. K. Bratt, Y. Kim.

Computer Science

W80 Computer Forensics: Digital CSI. Computer forensics and digital investigation is a blend of art and science used to discover evidence of how a computer has been used. Computer forensics is used to investigate everything from computers infected with malware to computers used to facilitate a criminal activity. Students will learn proper forensic procedures to maintain the chain of custody, how to create digital images, and how to examine both live and static computers. They will be introduced to a variety of tools ranging from freely-available open-source tools to professional tools. They will analyze both Windows and Linux computers, and they will see the special techniques used in analyzing a Macintosh. This is a hands-on course. Evaluation will be based on regular lab assignments and a final project. This course may fulfill an elective in the Computer Science and Information Systems majors. Prerequisite: CS262 or permission of instructor. *E. Fife.* 2:00 p.m. to 5:00 p.m.

IDIS W61 Creative Computing. *J. Nyhoff*.

Developing a Christian Mind (DCM)

Developing a Christian Mind (DCM) is a first-year core course that introduces students to the central intellectual project of Calvin College, the development of a Christian worldview, and a faith-based engagement with culture. All DCM sections include common readings and plenary lectures, which sketch out the broad contours. Each section then works out the implications of a Christian frame of reference in relation to an issue of contemporary relevance. Student evaluation is based on classroom participation, quizzes on the readings and lectures, writing assignments or presentations, and a final exam.

150 01 DCM: C.S. Lewis. C. S. Lewis was one of the greatest champions of the Christian faith in the twentieth century. His apologetic writings, both fiction and nonfiction, continue to instruct, entertain, and challenge. This course engages Lewis through three of his classic works: Mere Christianity, The Screwtape Letters, and The Great Divorce. As a collateral text, we will read Lewis Agonistes: How C. S. Lewis Can Train Us to Wrestle with the Modern and Postmodern World, by Louis Markos. Excerpts from the film The Question of God: C. S. Lewis and Sigmund Freud and a full screening of the movie Shadowlands will complement the readings. The goal of the course is to bring Lewis into conversation with the Reformed tradition's understanding of creation, fall, redemption, and consummation and to consider how the two can help Christians think about such issues as scientific naturalism, atheistic evolutionism, ethical relativism, and new-age paganism. Evaluation is based daily journaling, participation, an integrative essay, and a final exam. *D. Harlow*. 8:30 a.m. to noon.

150 02 DCM: C.S. Lewis: Integrating Reason, Imagination, and Faith. This course will explore the extra-ordinary life and influential writings of one of the most exact and penetrating Christian minds of recent times, Clive Staples Lewis. C.S. Lewis (1898-1963) is perhaps the most widely read Christian intellectual of the twentieth century. The course concentrates on his integration of reason, imagination and faith. Students will be encouraged to freely investigate and find out how Lewis, honestly, painstakingly and faithfully, attempted to see, and apply to his life and writings, human life and history as held in God's hands. Samples of Lewis's works related to literary criticism, theology, philosophy, poetry, autobiography, and children's stories will be read and freely debated in a Socratic approach format. Also audio recordings of Lewis's own lectures and videos about Lewis's life will be presented and discussed. *A. Ribeiro, P. Ribeiro.* 2:00 p.m. to 5:00 p.m.

150 03H Honors DCM: Christian Leadership. Whenever people are together, leadership appears. How people exert leadership varies considerably. How people respond to leadership varies still more. Students participate in a simulated research organization, applying for and performing specific positions and roles. As they obtain leadership information, they apply it to their simulation activities. Their leadership and response to others' leadership are evaluated by peers and the instructor almost daily, as is the quality of their research and research reports. Participants are challenged to identify and defend core Christian values that apply to leadership, to assess the quality of current and past leadership theories, and to assess the leadership of selected prominent leaders in the church, government or politics, and in Christian communities. In light of their assessments, they recommend improvements in the leadership they

observe. In response to frequent feedback, students' leadership knowledge and skill increase demonstrably. This section is restricted to members of the honors program. *D. Nykamp.* 8:30 a.m. to noon.

150 04 DCM: The Church in the 21st Century. The local Christian church is undergoing rapid change. Changes in worship style, music, the visual arts, and the role of lay leadership are just a few of the elements that are driving these changes. Still deeper, many Christians are questioning even the necessity of the institutional church. Others are asking, "What is the role of the local church in the Kingdom of God?" These questions are being asked in the midst of a North American society that is rapidly becoming more secular, pluralistic, and materialistic. Local churches must be ready to respond and speak clearly to these and other issues. This course will challenge students to think about their individual roles within the local church, and to think carefully about the nature and mission of the local church within a broad Kingdom context. Students will be required to visit local churches as part of their course work. *R. Scott Greenway*. 2:00 p.m. to 5:00 p.m.

150 05 DCM: Where is Home? The last 150 years of world history have been characterized by unprecedented global mobility. In our increasingly shrinking and accessible world many move by choice while others are forcibly moved against their will. How does this nomadic life affect our desire and quest for "home?" The course will look at the different dimensions of home; is it a place, person(s), state of mind? How has it been defined at different times and currently in different cultures? What are the spiritual implications of "being at home?" How does God transform us from rootless nomad to grounded pilgrim? What is our role as divine image-bearers in assisting others in finding and being at home? We will explore the diverse aspects of home and various forms of historical and contemporary (im)migration, from the voluntary to the traumatically forced, through non-fiction texts, documentary and feature films, fiction, lyric poetry, and personal story. The students' performance will be assessed by a reading and viewing journal, brief quizzes, completion of a first-person interview, participation in class discussion, and a final test. *M Buteyn*. 2:00 p.m. to 5:00 p.m.

150 06 DCM: A Christian Response to Racism. Preferential treatment based on race is foundational to the development of the United States. But considering political gains and economic advancements of People of Color, do we now live in a post-race society? In this course students study the complex definition of racism and the effects of the reality of racism in the United States. Students will seek ways to fulfill part of our calling to work for justice as citizens of God's kingdom by applying a broader understanding of racism to the church, academy and society. The course includes films, readings, discussions, lectures, journals, student presentations, and field trips. *J. Rhodes*. 2:00 p.m. to 5:00 p.m.

150 07 DCM: Unexpected Guests . This course examines assumptions and common misperceptions connected with disability, especially meanings that reside in the mind of the observer rather than inherently in conditions labeled as physical, emotional, or cognitive impairment. Facilitating inclusion of persons with disability labels into the life arenas of work, worship, recreation, education and community living is a primary goal of the course, as is understanding of the themes of powerlessness, interdependence, and hospitality to stranger as they affect each of our lives. In addition to readings, discussion, and written reflection, students

will interact with people who live with disability and experience representations of disability in popular media. *T. Hoeksema*. 8:30 a.m. to noon.

150 08 DCM: Missing the Message? Sometimes the message presented isn't the one that's heard. At times this is because of how the message is presented; other times, a person's own thoughts and ideas get in the way of understanding. This can be seen, for instance, in discussions about faith: some Christians (mostly those who'd call themselves postmodern) would argue that how one lives is a lot more important than what one believes. Yet, the Reformed view seems to argue that what one believes is most important. Or does it? The class will look not only at the Reformed message (and how it is presented) but will also cover a number of other areas in which there is potential misunderstanding of the message, such as: education, media, sociology, languages, statistics, psychology, and technology. A variety of formal and informal assignments will be given, with an emphasis on dialogue and participation. The assignments and class sessions themselves will be looked at in terms of how a message can best be heard and remembered. Lastly, the "message" of this course will be given from the perspective of a member of a monastic community in Amsterdam's Red Light District, highlighting further what can affect how the message is given and heard. *B. Heyink*. 8:30 a.m. to noon.

150 09 DCM: Dystopia & Utopia: World of Science Fiction. For over a hundred years, science fiction and fantasy writers have been fascinated by the possibilities afforded by extrapolating contemporary trends, ideas, and inventions and pushing those imaginings into the future. Sometimes the results are frightening, but this fiction can always shape the way the young Christian student shapes his behavior, her choices, his values, and her discernment Such writers as Isaac Asimov, H.G. Wells, Ray Bradbury, George Orwell, Aldous Huxley, and C.S. Lewis will be considered in this class, especially as they speak to the intentional Christian scholar. The best novels and short stories from these writers will be engaged; daily reading quizzes will be administered; two essays will be assigned and a final exam will be administered at the end of the course. *J. Fondse.* 2:00 p.m. to 5:00 p.m.

150 10 DCM: Eugenics & Personal Genomics: Past, Present, Future. Eugenics - the improvement of heritable traits in humans through the promotion, elimination, or mandatory sterilization of certain peoples (e.g. poor, disabled, homosexual, and racial minorities) is a philosophy we most commonly associate with Hitler and Nazi Germany. Would it surprise you to know that eugenics programs were promoted in the US well before Hitler, by prestigious institutions like the Carnegie Institute and the Rockefeller Foundation, and by notable persons such as Teddy Roosevelt, H.G. Wells, and Woodrow Wilson? After WWII these programs and their support fell in disfavor. However, the sequencing of the human genome has made modification of the human species possible again, through artificial selection of "good" traits over "bad." Is the use of genetic information or manipulation of genes to prevent disorders an acceptable form of "treatment," rather than drug therapies and surgical procedures commonly used today? Did you know that right now you can obtain data from your own personal genome that includes your susceptibility to over 90 different diseases and traits for as little as \$400? Do you want to know what diseases you may be susceptible to, even if the disease has no cure? What decisions go into obtaining and interpreting this information, and what values should guide our use of it? This course will evaluate the rise of eugenics, its subsequent fall, and reinvigoration in the genomic era. Students will learn to recognize eugenics in all of its forms, both past and present, and will evaluate its implications in political, socio-economic, moral and religious contexts. Students will be graded on the basis of class participation, journal responses, quizzes, an exam, and a course paper. A. Wilsterman, J. Wertz. 8:30 a.m. to noon.

150 11 DCM: Eugenics & Personal Genomics: Past, Present, Future. Eugenics - the improvement of heritable traits in humans through the promotion, elimination, or mandatory sterilization of certain peoples (e.g. poor, disabled, homosexual, and racial minorities) is a philosophy we most commonly associate with Hitler and Nazi Germany. Would it surprise you to know that eugenics programs were promoted in the US well before Hitler, by prestigious institutions like the Carnegie Institute and the Rockefeller Foundation, and by notable persons such as Teddy Roosevelt, H.G. Wells, and Woodrow Wilson? After WWII these programs and their support fell in disfavor. However, the sequencing of the human genome has made modification of the human species possible again, through artificial selection of "good" traits over "bad." Is the use of genetic information or manipulation of genes to prevent disorders an acceptable form of "treatment," rather than drug therapies and surgical procedures commonly used today? Did you know that right now you can obtain data from your own personal genome that includes your susceptibility to over 90 different diseases and traits for as little as \$400? Do you want to know what diseases you may be susceptible to, even if the disease has no cure? What decisions go into obtaining and interpreting this information, and what values should guide our use of it? This course will evaluate the rise of eugenics, its subsequent fall, and reinvigoration in the genomic era. Students will learn to recognize eugenics in all of its forms, both past and present, and will evaluate its implications in political, socio-economic, moral and religious contexts. Students will be graded on the basis of class participation, journal responses, quizzes, an exam, and a course paper. R. DeJong, S. Matheson. 8:30 a.m. to noon.

150 12 DCM: Sustainability and Worldviews. Global environmental issues related to creating a sustainable future generate much debate in the public media, among policy-makers, and even on a personal level. What shapes our view of the natural environment and how do these views affect our response to environmental issues? The course examines how different worldviews play out in human interaction with the created world. In particular students study modern, post-modern, and some explicitly Christian worldviews with respect to our relationship to the natural world. Drawing on the Biblical themes of creation, fall, redemption, and sanctification and their implications for environmental stewardship, this course seeks to cultivate a mature Christian response to environmental issues, especially as these come to expression in issues related to the sustainability of modern civilization. Global issues relevant to the sustainability of human society include climate change, energy supply, biotic carrying capacity, environmental pollution, the carbon cycle, biodiversity, water resources. The course will feature videos, guest lectures, professorial presentations, discussion, and student presentations. Assessment will be based on attendance, quizzes on reading assignments, class tests, writing assignments, class participation, a project report, and final exam. *K. Piers.* 2:00 p.m. to 5:00 p.m.

150 13 DCM: Genesis and Science. The course is focused on the famous problem of apparent conflict between the creation story of Genesis and theories of origins that now prevail in modern science. Guest lecturers from the natural sciences introduce the evidence supporting those theories (on the origins of the universe, the earth, and species.) In an essay of three or four pages, students write a coherent summary of this evidence to submit as part of the final exam at the end

of the term. Next, students examine debate that has erupted over how now to read and understand the story of origins in Genesis. Does Genesis in fact agree with the teachings of science, as so-called Concordists have proposed? Or does Genesis disagree with these teachings, so much so that a Christian crusade against modern evolutionary science is required? This is the proposal of "Simple Literalists," or "Young Earth Creationists," who take their cause passionately to evangelical churches nationwide. Serious defects of both these approaches to Genesis are raised for discussion and examination. Stress falls on a third approach that prevails among scholars of the Bible, but which is not very well known outside academic institutions. It is to see Genesis in its own Ancient Near Eastern historical setting, and that way to read and understand it in its own original terms. In this approach, Genesis has little or no relevance to modern science, but instead offers a unique religious vision of God and human existence for modern people. In an integrative essay of five pages, students show that they understand and can explain the elements of this view clearly and as a coherent whole. *J. Schneider*. 8:30 a.m. to noon.

150 14 DCM: God's Economy Across Cultures. Have you ever had a puzzling conversation with someone where even though you spoke the same language you could not quite communicate? And where this led to frustration or misunderstanding? Our ways of communicating, as well as our values, norms, and behaviors are shaped not only by our language, but also by cultural influences. In this course, students deepen their understanding of the cultural influences on their own values, norms, and behaviors as well as on those from other cultures, with a special emphasis on Native American cultures. Lack of cultural awareness can lead to severe problems, from oppression by dominant cultures throughout history to simple misunderstandings that impede communication in international relations today. At a national level, this can lead to human suffering. At an individual level, lack of cultural awareness can result in lost opportunities to grow from encounters with those different from us. Throughout the course students read, discuss, and listen to a variety of speakers and insights. The learning objectives include a heightened awareness of how cultural contexts and faith traditions impact human relationships; a deeper understanding of how the Reformed tradition of Christianity relates to other faith traditions; and increased listening and conflict resolution skills. Evaluation will be based on written papers, oral presentations, and thoughtful discussion. B. Haney. 2:00 p.m. to 5:00 p.m.

150 15 DCM: The Resurgence of Calvinism. Calvinism, often seen as a dusty throwback to a more theologically passionate age, has new found popularity in North America (the course title gets 172,000 hits on Google). This course will investigate the questions of how and why Calvinism is once again growing in Evangelical circles. Students in this course will (1) review the basic theology and world and life view of Calvinism, (2) read, see, and evaluate some current presentations of Calvinism (John Pieper, Mark Driscoll, etc.), and (3) discuss, debate, and draw conclusions about why these new brands of Calvinism are appealing in this post-modern era. Students are evaluated based on classroom participation, writing assignments, quizzes, and a final exam. *P. DeVries*. 8:30 a.m. to noon.

150 16 DCM: Human Nature: Psychological & Religious Perspectives. Does the Bible or religion have anything to say to Psychological Science? This course suggests that psychological issues have been contemplated throughout history. Issues such as mind and body, emotional

disorders, child development, and social interactions have been addressed by many religious traditions. Students will review some of the basic topics of current psychological science. Each area will be followed by an exploration of what people – particularly as found in the Bible - have historically understood about these issues. Discussions will focus on the contrasts and similarities between each perspective. Considerable weight will be given to appropriate ways to understand biblical passages, theological interpretations and modern psychological theories. Discussions will also focus on ways to develop a coherent approach to resolve apparent conflicts or to benefit from each perspective. Students will lead many of the discussions and there will be several small group presentations and discussion sessions. *S. da Silva*. 8:30 a.m. to noon.

150 17 DCM: Jewish Thought and Culture. Christianity arose from a Jewish context, but interactions between Jews and Christians have often been strained. The Jewish people have developed traditions that are frequently quite different from those found in Christianity. This course aims to improve students' understanding and appreciation of Jewish thought and culture. Through this process, this course aims to encourage a greater understanding of the Reformed tradition of the Christian faith. We will explore the lives and writings of several important Jewish thinkers. We will also explore creative and artistic works, looking for insight into Jewish culture and Jewish experiences. Evaluation will be based upon class participation, a journal, and a final exam. *D. Billings*. 8:30 a.m. to noon.

150 18 DCM: Just War & Christian Ethics. Christian faith worships the "Prince of Peace" who commands his disciples to "turn the other cheek." How, then, is the Christian to think about war? From a Christian point of view, is such a thing as a just war even possible? What should the church's witness to the Christian vision of peace look like in a world of war and violence? This course examines Christian ethics and issues pertaining to war and peace. Topics discussed are: biblical teachings regarding war and peace, Christian ethical frameworks, just war theory, Christian pacifism, Christian realism, and contemporary issues. Students will be able to: (1) articulate accurately a variety of Christian positions on the relationship between peace and war, including just war perspectives and pacifist perspectives; (2) apply the theoretical resources of Christian ethics to concrete questions related to war in the contemporary world; and (3) deepen their ability to exercise critical and Christian thinking in their approach to the complex issues of war and peace. Students will be evaluated on the basis of quizzes, impromptu writing assignments, the quality of their participation in class discussions, a reflection paper, and a final examination. *M. Lundberg.* 8:30 a.m. to noon.

150 19 DCM: Understanding Islam. This course surveys the history of the Islamic religion from its beginnings until the twenty-first century. After a brief look at the Arabs in antiquity, we take up the issue of the historical Muhammad, the revelation of the Qur'an, and the rise of Islamic communities. We study the development of sects, theology, philosophy, and mysticism in the context of the growth of Islamic societies, with the Ottoman Empire as a case study. Readings include the Qur'an, selections from the works of modern Muslim thinkers and other primary sources, and a popular book about the history of Islam. Discussions examine contemporary issues, including Palestine, fundamentalism, terrorism, the status of women, the legacy of colonialism, the myth of an Islamic-Western confrontation, and Christian views of other religions. We will visit a Grand Rapids mosque and meet Grand Rapids Muslims. Students

do readings, participate in discussions, take quizzes, and write three short papers. *D. Howard*. 2:00 p.m. to 5:00 p.m.

150 20 DCM: Living the Magnificat. The Magnificat, or Song of Mary [Luke 1:46-55] is an early Christian canticle that evokes numerous Old Testament texts, and includes the "great reversal" in which God humbles the mighty ones, and exalts the lowly. This text is found in the worship traditions of all Christians [Roman Catholic, Orthodox, and Protestant], and has multiple meanings and applications right into the present day. This interdisciplinary course will examine the text itself, study the uses of this text in Christian worship & music and personal piety, explore the role of this text in Mariology and Marian visual art, and take a critical look at the importance of this text in contemporary liberation theology and other recent Christian documents about social structures and public policy. The course requires oral group presentations in student teams and individual written work. *B. Polman.* 2:00 p.m. to 5:00 p.m.

150 21 DCM: Mathematics & Culture. How does mathematics influence culture, and how does culture influence mathematics? Answers to this question have varied over time and place, and often are related to other questions: Are mathematical objects discovered by humans or created by them? What are mathematical objects, anyway? Is mathematics important? Is it "true"? How do we learn mathematics? Is mathematics related to faith commitments? In this class, students investigate these and related questions through readings, discussions, and class activities. Evaluation is based on daily quizzes, class participation, writing assignments, and a final exam. *G. Talsma*. 2:00 p.m. to 5:00 p.m.

150 22 DCM: Men, Women and Media. The powerful stories media tell about gender affect people's sense of self and place. In this class, students analyze and discuss media representations of masculinity and femininity. Some have argued that media are by their nature evil. That is not the perspective of this class. In it, all media are seen as potentially filled with grace, with redemptive possibilities. Class members are expected to bring their own experiences of media to the conversation. Assignments include four short papers, an oral and visual presentation on an aspect of gender and media, and a final exam. *H. Sterk.* 8:30 a.m. to noon.

150 23 DCM: Music & the Mind of God. This course explores the question: "What is Christian freedom, and how might music help us or hinder us in attaining it? A primary object of study is film music, although we spend a considerable amount of time on popular music, worship music, and music in advertising. Students need to be willing to evaluate both aspects of music and some of the primary means and manners by which people in our society engage with it. Through this course, students will improve their awareness of the many roles that music plays in modern life and be able to evaluate them against various perspectives on Christian service. In addition, students will develop and sharpen the skills of listening to and talking about music. Graded activities include daily reading and homework assignments, a position paper, a group project, a final exam, and a self-evaluation of one's investment (including things like participation in discussion, attendance, and body language. *D. Fuentes.* 2:00 p.m. to 5:00 p.m.

150 24 DCM: The New Urbanism. This course examines the current cultural debate over the way we build cities. After the Second World War, the US embarked on a historically unprecedented pattern of development: low-density, auto-oriented suburbs. As the limits of that

pattern of development became apparent in the 1990s, the "New Urbanist" movement was spawned—a movement of architects, planners, environmentalists and citizen activists that has tried to recover more traditional ways of putting cities together. Students will review the history of city-building in the west, in teams of four or five design a town for 30,000, and read articles and view DVDs that explore different aspects of the issue. Several guest speakers from the development and planning community of Grand Rapids will address the class. The overall goal of the class is to gain a deeper understanding of our built environment. Evaluation will be based on reading journal entries, participation in the design project, a test and a final exam. *L. Hardy.* 2:00 p.m. to 5:00 p.m.

150 25 DCM: The Scandal of Incarnation. This section is designed for students who wish to explore in greater theological depth various readings of the Creation-Fall-Redemption paradigm and the implications the Christian doctrine of the Incarnation of the Son of God might have for that paradigm. Readings will be from St. Irenaeus, the 2nd century theologian who first clearly articulated the Church's response to the growing anti-creational and anti-incarnational threat of Gnosticism. Implications for the contemporary setting of Christians and Christian churches in American society will be discussed. *A. Griffioen.* 8:30 a.m. to noon.

150 26 DCM: The US Civil War & Reconstruction. For more than a century, the era of the Civil War and Reconstruction has been the most extensively written about period in America history and it continues to inspire passionate debate. This course shows why. Topics covered include slavery and the sectional crisis, explanations of the war's origins and course, and the contentious history of Reconstruction. Classroom activities include discussions, lectures, films, student presentations, and a simulation game. Students will be evaluated on the basis of daily quizzes over the readings, an oral book report, three primary source reports, a final exam that focuses on how the concepts presented by Neal Plantinga in Engaging God's World illuminate the issues raised by this period of history, and participation in class activities. *D. Miller*. 8:30 a.m. to noon.

150 27 DCM: Theatre, Faith, and Identity. Since the Greeks celebrated the god Dionysus through annual theatre festivals, tribes danced in mask and chanted ritualistic liturgies around fires, bards told stories of ancestors or people of legend, and clowns made riot in any performance space, theatre has helped us understand what it means to be human. Theatre is "the stuff" of human behavior and human interaction. By pointing out our foibles, longings, strivings, and failings, theatre allows us witness the consequences of human frailty and overweening passion. Theater allows us to see characters striving to make a life in this world and sometimes fail. We see that a character from centuries past, from a continent away, from a culture unlike our own, is much like ourselves, human, fallible and broken searching for meaning and identity searching for God. Theatre breaks down barriers by allowing us to understand people like and unlike us fail, laugh at human foolishness, and weep with characters that are undone by circumstance. Students will come to understand how theatre helps us to understand identity and faith. The course is based on a reading/viewing of eight different American plays. During the course these plays are analyzed and assessed against the theological material provided in Engaging God's World. Student learning is evaluated by written play responses, a reading journal for Engaging God's World, an exam, and an essay. D. Freeberg. 8:30 a.m. to noon.

150 28 DCM: Thinking About Decisions and God's Will. How does our reasoning shape our beliefs and how do our beliefs shape our reasoning? This course explores decision making as it relates to understanding ourselves, others, and God. A particular focus is how strengths and weaknesses of human decision making influence our choices and ability to choose. In addition, understanding God's will in light of our reasoning practices is examined. *D. Tellinghuisen.* 2:00 p.m. to 5:00 p.m.

CANCELLED 150 29 DCM: World Christianity: Christ of the China Road. Some say that by the end of the 21st century, China will be largely Christian. How is Christ received by Chinese people accustomed to Confucian, Daoist, and Buddhist traditions? How do indigenization and syncretism differ? What are the main doctrinal characteristics of the indigenous Chinese Church? What are Chinese "cultural" Christians? What are Chinese "house" churches? What is the relationship of the Christian church to Chinese government? To universities? To seminaries? What are six important ways in which CRC Christians are engaged in China today? How will Christian faith continue to grow and deepen in China in the future? Student learning will by discussion of readings in class, by a mid-term paper, and a final examination. *D. Obenchain*. 8:30 a.m. to noon.

150 30 DCM: Worldviews and the Natural Environment. Environmental issues generate much debate in the public media, among policy-makers and on a personal level. What shapes our view of the natural environment and how do these views affect our response to environmental issues? The course examines how different worldviews play out in human interaction with the created world. In particular students study modernist, post-modern, and some explicitly Christian worldviews with respect to our relationship to the natural world. This course seeks to cultivate a mature Christian response to the environmental issues, drawing on Biblical themes of creation, fallenness, and redemption and their implications for environmental action, as well as develop a mode of being in this world that is consistently inspired by a Christian worldview and a Christian mind. Students will be evaluated through daily quizzes over assigned reading material, a group project, and a final exam. *D. McCarthy*. 8:30 a.m. to noon.

150 31 DCM: Writing, Faith, and the Festival of Faith & Writing. This course explores how currently active writers draw from the resources of Christian faith in their fiction, creative nonfiction, and poetry. Students consider how writers portray the life of faith, address taboo topics, balance emphasis on fallenness and redemption, and negotiate difficult ethical questions about what it means to tell the truth and be faithful in their lives and their work. Students also consider the role of Christian publishing, Calvin's Festival of Faith and Writing, and various publications in the faith-and-writing subculture. Readings represent a range of genres and topics and are drawn from the work of authors who have appeared (or will appear) at the Festival. Students discuss assigned readings, keep a journal, write a paper, and produce creative work of their own. *D. Rienstra*. 8:30 a.m. to noon.

150 32 DCM: Global Hunger: Issues of Food Security & Sustainability. Students identify the root causes of global hunger and its linkage with environmental health, economic health, and social justice issues. By developing a clearer understanding of where our food comes from, students evaluate the sustainability of our current food system on environmental, nutritional, and social health. Factors considered in local context include land and water resource use, pesticides

and chemicals, biotechnology, organics, farmer markets and community-supported agriculture. The local context, once fully informed, is applied to the global environment. Having understood the current global situation from environmental, economic and social justice points-of-view, students can then investigate ways in which they can serve as intentional and effective agents of redemption today and in the development of their vocational plans. This course examines how our perspectives influence our perceptions and understanding of world hunger issues. Students examine how the causes of world hunger are deeply rooted in our understanding of the nature of human beings, the meaning of creation, and the relationship of human beings to their environment. Students also consider how our understanding of the norms of justice and how a biblical concept of justice applies to the worldwide distribution and availability of our daily bread. *U. Zylstra*. 8:30 a.m. to noon.

150 33 DCM: Called to Serve - Called to Lead. Through tears of shattered dreams, empty success, cruel injustice, and broken promises, the world cries for a sense of meaning, a sense of hope, and new life. Where are the leaders who can show us a "new land", a "new beginning', and a "new hope" for a better tomorrow? Exploring the commands of Jesus, the Biblical message, and Reformed theological insight, the course will examine (in practical terms) two propositions: (1) "Leadership is not simply a question of how can "leaders better serve", but rather how can "servants better lead" and (2) "Today's leaders are already in our midst." Class sessions will incorporate guest speakers, lectures, discussions, a project, videos, and readings from Neal Plantinga, Robert Greenleaf, Viktor Frankl, and Jim Collins. Students will be evaluated on the basis of performance during in-class discussion, group work, writing assignments, and a final exam. *S. Berg.* 8:30 a.m. to noon.

150 34 DCM: What's for Dinner? How can Christian belief inform personal decisions about what to eat? This class will examine some of the many problems confronting the eating habits and food systems in North America and explore literature, including biblical texts, Mark Bittman's Food Matters, Barbara Kingsolver's Animal, Vegetable, Miracle and various essays from Eat Well: a food road map, that helps provide a new perspective of food and the soil, animals, and human beings involved in its growth and production. Students will reflect on their own relationship to food and redemptive ways of eating. Class sessions will incorporate guest lectures, classroom discussion, film, critiques of food advertising, and hands-on interaction with food. *J. Lawrence*. 2:00 p.m. to 5:00 p.m.

150 35 DCM: Reconciliation in South Africa. Students work out the implications of a Christian worldview for issues of justice and reconciliation in South Africa. They explore the birth of a plural society: the post-apartheid South Africa. Using literature and cinema, students gain an appreciation for the politics of recognition, the contentious issues of cultural and political identity that are the sources of the ideologies, and the injustices and cultural and political conflicts that led to apartheid as a political system. In addition, students gain a fundamental understanding of the role of the protest and witness of many Christian groups and organizations that were instrumental in the miraculous nonviolent change and transformation that took place in South Africa during the nineties. In particular, the roles of the Koinonia Declaration, the Kairos Document, Africa Enterprise, PACLA, SACLA, the Belhar Confession and other witnesses against apartheid and for justice will be examined. Attention will be given to the role of the Truth and Reconciliation Commission and films and literature that portray the struggle for truth and

justice in the history of South Africa. Students are evaluated on the basis of class participation and presentations, quizzes on readings and class lectures, a research paper, a reading journal, and a final exam. *E. Botha.* 2:00 p.m. to 5:00 p.m.

150 36 DCM: Cinematic Storytelling. Stories are an integral part of human life, enabling human beings to envision and communicate about their world. This course will examine the way stories have been told in film, focusing on the two dominant modes of cinematic storytelling in film history: Classical Hollywood Cinema narration and European Art Cinema narration. Attention will be given to how story information is communicated and the forms stories take, while also considering what types of stories are told in the two filmmaking traditions and the moral and philosophical questions they often address. The class will consider how a particular kind of story (such as a romance or a coming-of-age tale) can be told differently in each of these filmmaking traditions. While neither school of filmmaking has claimed to represent a Christian worldview, each way of telling stories has insights to offer the thoughtful Christian viewer about how to speak truthfully about the complex world we live in. Students will examine the strengths and weaknesses of each model of narration in light of a Reformed worldview and will reflect upon the types of cinematic stories they regularly consume. Student assessment will be based on in class participation, a reading and viewing journal, an integrative essay, and a final exam. A. Richards, J. Vander Heide. 2:00 p.m. to 5:00 p.m.

150 37 DCM: Jesus, the one Name and others. This course explores the relation of the Christian claim that Jesus is the only way to the Father to the claims made by other major faiths. Using Reformed teaching on the Creator, common grace, the mystery of God's plan, and some key passages in the prophets, gospels, and letters it looks for ways to maintain the uniqueness of the Christian faith and to remain interested in Christian mission, while gaining some knowledge of other faiths and being open to civil dialogue with them. The course initiates some of the core knowledge of other religious traditions described in the Expanded Statement of Mission (see C. Plantinga, Engaging God's World, p.207). *M. Greidanus*. 8:30 a.m. to noon.

150 38 DCM: Pop Culture in the Empire. The word "empire" refers to a complex reality that is referenced throughout Scripture and has significant implications for daily faithfulness in today's world. This course uses Colossians Remixed (Brian Walsh & Sylvia Keesmaat) and additional resources to help define empire and the role of fully awake Christians living in the empire. Popular culture is explored in a broad sense, with particular reference to food, fashion, shopping, advertising, television, film, and music. Interwoven with pop culture, the course material touches on theological and philosophical concepts such as truth, storytelling, imagination, hope, modernism, and postmodernism. Through reading, film viewing, discussion, guest speakers, and special projects, students explore the problem of sin reflected in idolatry, consumerism, and power manipulation, but they are also encouraged to find hope in the Kingdom of God, rooted in individual practices and communal rituals. Course evaluation consists of reading responses, group projects, online conversation with other students in the class, as well as a final project that allows students to choose a particular area of pop culture in which to apply the theological framework presented in the course. Students will emerge from the course with: the ability to apply a comprehensive Reformed worldview to popular culture, an awareness of the systems and powers that influence human culture, a sense of hope rooted in the promises of God's Kingdom. K. & R. Vander Giessen-Reitsma. 2:00 p.m. to 5:00 p.m.

150 39 DCM: Global Crisis? Global climate change, water scarcity, mineral depletion, pollution, habitat loss, species extinction and human population growth. Much in the news, these are topics with alarming overtones. These interrelated topics cause significant turmoil in national and international politics and will impose difficult moral choices on our society. Are doomsayers too pessimistic? Will technology and economic growth save us? What is an appropriate Christian response? By way of assigned readings and student research, the basis of the warnings will be examined and personal and societal responses explored with presentations and class discussion, Each participant will explore one specific topic and produce a final paper. The instructor will serve as a guide, discussion leader and filter, not as an expert in all these complex topics. *S. Steenwyk.* 2:00 p.m. to 5:00 p.m.

150 40 DCM: Religion and Politics This is a course on the ethics of citizenship. There will be a special focus on the place of religious convictions and religious actions in modern pluralist democracy. The course consists of two parts. In part 1, students will read and discuss contemporary work on the ethics of public deliberation—to what extent should religious citizens offer their religious reasons in public debate in a pluralist democracy? In part 2, students will pursue an individual project. Each project will contribute to the public political discussion of some issue in keeping with the most defensible set of norms as established in the first part. In other words, students will engage in public political participation as part of this course. Students will learn to develop a critical understanding of the obligations of citizenship in public political deliberation, develop a critical understanding of the challenges that religious institutions and democratic institutions pose for one another in modern pluralist democracy and learn how to contribute to public political deliberation on important issues. Student evaluation will be based on a set of reading assignments, the individual project, and a final exam. *M. Jensen.* 8:30 a.m. to noon.

Dutch

DUTC W10 Introduction to Dutch (1 credit hour). This course intends to offer an introduction to the comprehension and use of spoken and written Dutch as well as exposure to the people and culture of the Netherlands. The course will acquaint students with elementary language functions. The objectives are that students learn to give and receive appropriate greetings; to express information about themselves, their families, and their environment. Students will also learn to use essential vocabulary to express gratitude for help and hospitality. They will acquire a basic cultural knowledge and a skill set for navigating the social and geographical terrain of the urban area in which they will live. Daily homework and quizzes and periodic tests will assess and evaluate student learning. This course is intended as a prerequisite for students who will go on the Calvin's Semester in the Netherlands Off-campus Program at the VU University Amsterdam. *Staff.* 7:00 p.m. to 9:00 p.m.

Economics

CANCELED W10 Economic Minds in the Making. Economists are storytellers. The stories they tell about issues such as healthcare, budget deficits/debt, and myriad other issues are varied and often confusing. Nevertheless, it is very important to understand the different stories that produce controversial opinions on these issues. However one feels about the issues at hand, it is critical to be able to understand and articulate the stories told from different perspectives. Participants in this course will be exposed to these different stories and expected to explain how these different stories produce radically different perspectives. Special emphasis placed on understanding and evaluating these stories from a Christian persective. Evaluation in the course consists of oral and written position statements from different economic perspectives. This course is not open to Business or Economics majors. *R. Devries*. 8:30 a.m. to noon.

W80 Christianity & Economics. The last decade has seen a new outpouring of books and articles about the relationship of faith and learning in economics. Protestants and Catholics alike have debated the moral value of markets and capitalism, and the relevance of different schools of economic thought, ranging from Austrian and institutionalist to the neoclassical mainstream. "Radical orthodox" theologians have produced sophisticated arguments about different forms of economic organization. In this class, students will sample a wide range of this literature through common readings and student presentations. Students are expected to become conversant with contemporary thought on the faith and learning issue in economics, being able to identify different positions with authors and institutions that support them. They will also improve their ability to make oral presentations. Each student will be required to make an oral presentation to the class on a recent book on Christianity and economics, which will be the main basis for evaluation. There will also be a final exam. Attendance is required for a satisfactory grade. This course may fulfill an elective in the Economics and Business majors. Prerequisite: one course in economics and one in philosophy. *J. Tiemstra.* 2:00 p.m. to 5:00 p.m.

CANCELED W81 Experimental Economics. In this course students explore the use of experiments designed to develop, research, and test economic theories of human behavior. Experiments serve both as a tool for understanding economic behavior and a method of research. This course includes an introduction to experimental design, a review of important experiments in the field, and analysis /evaluation of the applicable theories. Students design their own experiments and carry them out. Evaluation of the students is based on one paper, one exam, and daily work. This course may fulfill an elective in the Economics major and minor. Prerequisite: ECON 221. *S. McMullen*. 8:30 a.m. to noon.

<u>IDIS W12 Galapagos: Evolution's Diamonds or Ecuador's DisneyIslands.</u> *C. Blankespoor, S. Vander Linde.*

IDIS W51 Modern-Day Slavery & Gender Discrimination in Less Developed Countries. A. Abadeer.

Education

<u>IDIS W27 Introduction to Storytelling</u>. J. Kuyvenhoven.

English

W10 C.S. Lewis's Apologetics. A close examination of the core works of Lewis's apologetics—The Screwtape Letters, The Great Divorce, The Pilgrim's Regress Mere Christianity, and The Problem of Pain. Since Lewis also dramatized his beliefs in fiction, we will read one or two novels. Student evaluation will be based on reading quizzes, regular attendance, group projects, and journaling. *J. Timmerman*. 8:30 a.m. to noon.

W11 Southern Storytellers. In this course, students will be introduced to some of the most influential voices in Southern storytelling through interaction with select novels, short stories, films, art, and music. The course's primary questions are: how does the unique texture of the Southern experience lead to a particular type of storytelling? What type? In attempting to respond to these questions, students will investigate the complex interrelationship between the development of regional history and the formation of cultural identity in the form of storytelling. Particular attention will be given to the interweaving of religious experience, class consciousness, and racial conflict into the fabric of the "Southern story". Class sessions will be a combination of lecture and discussion on the various forms of storytelling. The reading, viewing, and listening list will include: short stories by Flannery O'Connor, Richard Wright, Katherine Anne Porter, and Ernest Gaines; William Faulkner's As I Lay Dying; art by Howard Finster; music by Will Oldham, Robert Johnson, Elvis, R.E.M., Otis Redding, and Hank Williams, Sr.; and the films Junebug (Phil Morrison) and Cookie's Fortune (Robert Altman). Evaluation is based on journal entries, class participation, an essay, and a course project. *M. McCampbell*. 2:00 p.m. to 5:00 p.m.

W12 Native American Lit. This course will focus on oral traditions and the later narrative, prose, and poetry of Native (North) Americans. Students will learn of the richness and diversity of various American Indian peoples, traditions, and beliefs as well as similarities in themes and storytelling styles. The literature will be examined in relation to the values (including Christian) and "history" of dominant Anglo culture, which the voices of the authors resist, affirm, and/or illuminate. Students will thereby better understand American literature and history and the role Christianity played and continues to play in Native American identity. Readings will include, among others, the writings of Occum, Appess, Zitkala-Sa, Waters, Momaday, Erdrich, Harjo, Alexie, and Silko. Students' performance will be assessed through evaluation of quizzes and worksheets, a group presentation, and a critical paper. *L. Naranjo-Huebl.* 2:00 p.m. to 5:00 p.m.

W40 African American English & Its Culture. This class will focus on a variety of English spoken by many African Americans: African American English. Through daily exercises students will learn linguistic tools for analyzing the sound, structure, and meaning of African American English. Through class lecture, group discussion, and local field trips, they will learn more about the history of this variety and how this variety shapes popular culture and the social interactions of Americans. Student evaluation will be based on short quizzes, short exploratory essays and one presentation to the class. This course may fulfill an elective in the English major, the Linguistics, ESL and English minors. *A. Kortenhoven, E. Vander Lei.* 8:30 a.m. to noon.

W41 Dostoevsky. This course explores the ways in which the fiction of Fyodor Dostoevsky handles faith and doubt. Drawing from the theoretical works of Mikhail Bakhtin and Rowan

Williams's recent book Dostoevsky: Language, Faith and Fiction, students will discover the unique ways in which fiction is able to present spiritual concerns not as abstract ideas or theological arguments, but as part of the concrete, organic experience of everyday life. Students read Notes from Underground, Crime and Punishment, and The Brothers Karamazov in addition to supplementary material from the authors mentioned above. Students are evaluated on daily quizzes, brief written assignments, and participation in a group project. This course may fulfill an elective in the English major. *C. Engbers.* 8:30 a.m. to noon.

W42 Nothing New Under the Sun: Tellings & Re-tellings. Why is it that some stories fascinate us, refusing to go away? What makes us not only continue to pore over the original tale, but refashion this original, altering it in the retelling? In other words, what earns a story a long half-life, full of telling and retelling? What entices us to return to certain foundational narratives over and again? And when we retell a foundational narrative, is what we are doing forging an interpretation of the "original" story? Perhaps retellings possess their own originality too? How, then, do we interpret them? This course investigates these questions (and many others) by asking students to reexamine the original versions of several foundational narratives—including from the Bible, from Greco-Roman mythology, from fairytale—as well as their retellings in fiction and film, lyric poetry and popular culture (including a Simpson's episode). Student evaluation is based on daily reading, response papers, and a final creative project. This course may fulfill an elective in the English major. *J. Holberg*. 8:30 a.m. to noon.

W43 Women of the Left Bank: 20th Century Modern Women Writers. The literary life of Paris between 1900 and 1940 was equally marked by both its intellectual fervor and its giddy self-indulgence. Perhaps even more remarkable is the contribution of women to this heady mix. Following Shari Benstock's survey, Women of the Left Bank: Paris: 1900-1940, this course will not ask "What was it like to be a part of literary Paris?" Instead, we will ask "What was it like to be a woman in literary Paris?" We will look at a number of women whose contributions illuminate aspects of Modernism that are often overlooked by standard accounts. We will study women who participated in Paris life through a number of venues -- writers, publishers, book sellers, and salonières -- in order to question how these women positioned themselves as both women and intellectuals in Paris, charting, as Benstock does, "experiences that were significantly different from those of their husbands, brothers, and male Modernist colleagues." Student evaluation will be based on three 1 page close readings and one 5 page paper. This course may fulfill an elective in the English major. *J. Williams*. 8:30 a.m. to noon.

W44 Writing for the Child, Middle Grade, & Adult Reader. In this workshop, students write short works for child, middle grade, and young adult readers. They focus on several genres for these three audiences: poetry; realistic, fantastic, or historical fiction; and nonfiction. Students read examples of all of these genres for all three audiences, as well as critical pieces about writing by established writers for children. Editors visit the class as guest speakers. Students are expected to see themselves as writers in the vocational sense of the word, so they should plan to write extensively, to critique each other's work, to make presentations about their work, and to think about issues of publication. Students should come with a willingness to take risks, to accept criticism, and to work hard. Evaluation is based on participation and on the portfolio that the student will take from this experience. This course may fulfill an elective in the English major and the Writing minor. *D. Hettinga, G. Schmidt.* 8:30 a.m. to noon.

W45 Human Creativity & the Literary Arts. This course is designed for, but not limited to, writers interested in exploring the creative process as well as looking for inspiration for their art. Throughout the course, students investigate answers to a variety of questions: What is the source of human creativity and how do writers tap into it? What can be learned from pioneers in and outside the literary arts—their methods, their studios, their habits of thought? What does creativity have to do with godliness? The primary text for the course is Peter Turchi's Maps of the Imagination: The Writer as Cartographer, but students watch and discuss documentaries of various artists reflecting on their art—architects such as Frank Gehry, musicians such as Les Paul, photographers such as Annie Liebovitz, and others. The course approaches creativity in a multi-sensory, multimedia way. Class periods not only provide opportunities for the mind to roam in conversation but also hands-on exercises, mini-field trips, and invitations to play. Throughout the course, students reflect, dabble, scheme, and dream in a sketchbook—blank pages for their observations, questions, and creative responses, including the rough beginnings of stories, poems, or compositions. Students will be evaluated on the quality of the sketchbooks (25 page minimum) and a short reflection paper on the creative process (4 page minimum), as well as their level of engagement with the assigned readings and class activities. The ultimate goal, then, is that the course will serve as a hothouse for student creativity. The course counts as an elective in the writing minor. L. Klatt. 2:00 p.m. to 5:00 p.m.

W80 Boxes of History: Using old words to write new stories. This workshop leads students through the process of researching, writing, and publishing works of historical fiction. Students read two novels, as well as a number of essays that address the challenges for authors who use elements from history to write for a contemporary audience. Class time consists of lectures, discussions, research, and composition. Additionally, the class views films and video clips that illustrate how critical the setting, dialogue, plot, and characters are in creating a world from the past that reflects issues faced by the modern reader. Students complete several small writing exercises and then do extensive research for writing a chapter or short story—for adults or children—in the historical fiction genre. Students learn to review and edit one another's work. Evaluation is based on the students' portfolios of course assignments and on the students' participation in the readings and discussion. This course may fulfill an elective in the English major and in the writing minor. Prerequisite: ENGL 101. Fee: \$125 (Chicago Field Trip) *N. Hull*. 8:30 a.m. to noon.

339 English Grammar. A study of traditional grammar, focusing on its history, its system, its applications, its competitors, and its place in the middle-school and high-school classroom; special emphasis will be given to the system and terminology of this grammar. Student work will be evaluated by means of daily assignments, in-class projects, a test, and a short paper. This course may fulfill an elective in the English major. *B. Vande Kopple, J. Vanden Bosch.* 8:30 a.m. to noon.

IDIS W22 An Inside Look at the January Series. R. Honderd, K. Saupe.

Engineering

W80 Advanced Chemical Engineering. This course addresses essential advanced topics for design. Topics build on the foundational concepts from several earlier engineering courses. The course includes advanced topics from separations, heat transfer, and non-elementary kinetics. An introduction to mathematical modeling for advanced transport is considered. In addition, fundamental concepts of environmental, health, and safety issues, as well as corrosion and materials of construction for design are presented. This is a required course for senior chemical engineering students. Prerequisites: ENGR 330, 331, 335, and senior standing. J. J. VanAntwerp, J. VanAntwerp. 8:30 a.m. to noon.

W81 Finite Element Analysis. The finite-element method is a design and analysis tool widely used in many areas of engineering. In this course students consider the historical development, the fundamental principles, and the various applications of this method in the areas of structural mechanics and heat transfer. Exercises are assigned to orient the student to available general-purpose software. There is an in-depth focus on several design projects. Evaluation is based on the exercises, design-project reports, and a final presentation. This course may fulfill an elective requirement in the Engineering major. This course may fulfill a senior topics elective for engineering majors. Prerequisite: ENGR 305 and senior standing in engineering or permission of the instructor. *A. Si, R. Tubergen.* 8:30 a.m. to noon.

W82 Stormwater Management. Civil and Environmental Engineers today are frequently faced with the problem of managing the impacts of stormwater within both urban and rural environment. Management involves addressing issues of both stormwater quantity and quality. The first objective of this course is to introduce the basic principles, computational methods, and treatment approaches used to manage stormwater quantity and quality. The second objective is to introduce the students to issues of professional practice through design projects. The projects will look at problems of both urban and rural stormwater management and treatment. Guest speakers and case study reviews are also used to emphasize basic principles and management techniques. Course evaluation is based on problem assignments and design projects. This course may fulfill a senior special topics interim for Engineering students. Prerequisite: ENGR 320 and 306 or permission of instructor. *R. Hoeksema, D. Wunder.* 8:30 a.m. to noon.

W83 VHDL-Based System Design. This course explores advanced digital system design techniques. Hardware designs are developed through the use of VHDL (VHSIC Hardware Description Language). The course examines the VHDL design methodology and compares the behavioral, dataflow, and structural architecture description styles. Syntax constructs for describing sequential and concurrent modules are studied in detail. Verification techniques are covered along with project definition. Students design a variety of circuits and modules using sophisticated CAD tools, implement microprocessor subsystems and microprocessor interface circuits in the lab, and demonstrate their understanding of VHDL design principles. Evaluation is based on homework assignments, class participation, quizzes, and design projects. This course may fulfill a senior topics elective for engineering students. Prerequisites: ENGR 325 or permission of the instructor. *R. Brouwer.* 2:00 p.m. to 5:00 p.m.

CAS 101 Oral Rhetoric. This course is intended for only those students in the Engineering program. Students examine the principles of oral and visual rhetoric, with an emphasis on guided practice in the development of effective speeches. The course leads students to understand the role of rhetoric in society, to think critically about rhetorical situations and practices, and to gain proficiency in the art of rhetoric. Students must complete the following: three graded presentations, three short un-graded presentations, a written critique paper, and an exam. *M. Steelman-Okenka*. 8:30 a.m. to noon or 2:00 p.m. to 5:00 p.m.

IDIS W10 Business & Engineering in China. C. Jen, L. Van Drunen.

IDIS W29 Management of Innovation. P. Snyder, W. Wentzheimer.

IDIS W42 Business, Engineering & Religion in the Context of European Culture. G. Ermer, N. Nielsen.

IDIS W46 Transforming Cambodia. L. De Rooy, D. Dornbos.

French

FREN W60/W80 Quebec. Students in this course spend three weeks in the province of Quebec studying French-Canadian culture and language. Students live in Montreal with a Frenchspeaking host family that provides bed, breakfast, and dinner. For lunch, a daily cash allowance is provided. At the Institut Farel, a French Reformed seminary located in Montreal's city center (near McGill University and Concordia University), Calvin and Farel faculty offer students take part in seminars covering topics such as the differences between Quebecois French and "standard French," the religious history of Quebec, current events in Quebec, literature set in Montreal, and the ecology of the Saint-Lawrence River. A Bible study in French is also offered. Students visit the major cultural attractions of the city and have the opportunity to take part in winter activities. Walking tours in Montreal focus on discovering the various neighborhoods that form this uniquely bilingual and multicultural city. In Quebec City, students spend a weekend studying the French colonial heritage of the province's capital. The course grade is based on regular participation in course activities and satisfactory progress in achieving language goals as evidenced by completing a series of assignments. Students reflect on cultural difference and the challenge of adapting to the cultural expectations of the other in journal entries and in three reflection papers in French. This course satisfies the CCE requirement. This course may fulfill an elective in the French major and minor. To obtain credit towards a French major or minor (W80), French 215/301 is a prerequisite and all assignments must be completed in French. To take the course for general interim credit (W60), French 201 is required and some assignments may be completed in English. Course dates: January 6-26. Fee: \$2810. O. Selles. Off campus.

*Fee of \$2810 includes air fare from and back to Grand Rapids, course fees at the Institut Farel, room and board, an excursion to Quebec City, and all other activities.

112 Multisensory Structured French. The second course in a three-course sequence of language study designed to meet the special needs of at-risk students. Materials are presented with an emphasis on understanding the nature of language. General language-learning skills are developed as specific foreign language goals are met. The course is open to students who, on the basis of adequate documentation, are continuing from 111 and expect to complete through the French 113 level. Evaluation is based on quizzes, tests, writing assignments, oral interviews, cultural projects and activities, journals, and one-hour afternoon small group sessions. Prerequisites: FREN 111 or permission of the instructor. *I. Konyndyk.* 9:00 a.m. to noon and 1:30 p.m. to 4:00 p.m.

132 Intermediate French. This is the second course in a closely integrated and intensive sequence of language study involving two semesters and the interim, for students who have completed two years of high school French but who, on the basis of a placement test, are not prepared for 201. The course is also open to strong language learners who have had no previous French, but who are capable of learning French in a fast-paced sequence. Students in this sequence complete their foreign language core requirement with French 202. *V. De Vries*. 8:30 a.m. to noon.

Geology, Geography & Environmental Studies

GEOL W40 Hawaii: Volcanoes in the Sea. This course explores the natural and cultural history of Hawaii, Maui, Kauai, and briefly Oahu, the four major islands of the Hawaiian archipelago. Hawaii contains the world's most active volcano at Kilauea caldera and Hawaii supports a fragile, tropical ecosystem. The course focuses on the active and extinct volcanoes and other geologic features of the islands, but students also investigate Hawaii's marine (reef) environment, the diverse land ecology, and the human history of settlement and development of the islands. Students hopefully view ongoing eruptions and hike over and study fresh lava flows and associated volcanic features. Instruction will take place on daily field trips to sites of geological, oceanographic, ecological, and cultural significance. Daily activities include light to occasionally moderate to optional strenuous hiking, and occasional snorkeling. Each student is responsible for reading the assigned text, each student discusses an aspect of the Hawaiian Islands or culture in an on-site class presentation, and each student maintains a daily journal. This course may fulfill an elective in the Geology, Geography, Environmental Geology and Environmental Studies majors and minors. Course dates: January 6 -27. Fee: \$3200. *G. Van Kooten*. Off campus.

GEOL 151 Big Sky Geology: Montana Field Experience (MAY) (field version of on-campus Geol 151) (4 credit hours). This Interim in May course in Physical Geology is based in SW Montana, a location with a wide variety of superb geologic exposures and landscapes. This course fulfills the Physical World core and emphasizes outdoor, field-based investigation and learning. Students will be introduced to the breadth of geological study leading to responsible Christian appreciation and stewardship of the Earth. Topics include rocks and minerals, volcanoes, weathering, rivers and streams, geologic time, plate tectonics, natural resources and geologic hazards. Afternoon field activities are an important part of the course, and field work complements morning lecture and lab activities. Included among the many visited localities are Butte, Yellowstone National Park and Craters of the Moon National Monument. As a graded course, quizzes and exams will cover lecture, lab and text. Students will be required to complete lab assignments and maintain a written field log. This course may fulfill an elective in the Geology major or minor, the Environmental Geology major, the Earth/Space Science for Secondary Education major or minor, and fills Physical World core. NOTE: This 2-week Interim course begins immediately after spring semester exams. Course dates: May 21 - June 3, 2010. Fee \$1100. R. Stearley, G. Van Kooten. Off campus.

IDIS W43 Ethiopia: Communities of Hope. J. Bascom, M. Vander Wal.

IDIS W47 Who Owns the West? An Introduction to Federal Land and Resource Management. (MAY). J. Skillen.

IDIS 375 Methods & Pedagogies for Secondary Social Studies. R. Schoone-Jongen.

German

DUTC W10 Introduction to Dutch (1 semester hour). This course intends to offer an introduction to the comprehension and use of spoken and written Dutch as well as exposure to the people and culture of the Netherlands. The course will acquaint students with elementary language functions. The objectives are that students learn to give and receive appropriate greetings; to express information about themselves, their families, and their environment. Students will also learn to use essential vocabulary to express gratitude for help and hospitality. They will acquire a basic cultural knowledge and a skill set for navigating the social and geographical terrain of the urban area in which they will live. Daily homework and quizzes and periodic tests will assess and evaluate student learning. This course is intended as a prerequisite for students who will go on the Calvin's Semester in the Netherlands Off-campus Program at the VU University Amsterdam. *Staff.* 7:00 p.m. to 9:00 p.m.

W80 German Interim Abroad. Participants engage with and improve their knowledge of the German language and culture on this study experience, which includes stays in Schleswig-Holstein, Berlin, locations in former East Germany, and Munich. Activities include three home stays, lectures, discussions, interviews, tours, and attendance at cultural and social events. Course participants choose where they will travel independently during the last five days. Course goals include active participation in course activities, gains in mastery of the language, increased understanding of various religious, political, and broadly cultural phenomena of Germany, and growth in intercultural sensitivity. Students will be assessed on their individual vocabulary acquisition, submission of a written portrait (in German) of a guest family, and submission of at least two analytic journal entries. This course may fulfill an elective in the German major and minors. This course will fulfill the CCE requirement. Prerequisites: German 215 and permission of the instructor. Course dates: December 28 - January 23. Fee: \$2640 and up to \$600 for personal and final-week costs. *C. Roberts*. Off campus.

Greek

GREE 101 R Review Greek. This review is intended for all students who have completed Greek 101 and intend to continue in Greek 102. The course thoroughly reviews the elementary Attic Greek grammar which was presented in 101 and aims to insure that students maintain proficiency until 102 begins, since there is no review in the spring semester. No work outside of class is required in Greek 101-R, though optional exercises are available. Since the course is non-credit, it is typically taken in addition to a regular Interim class. Identical sessions of Greek 101-R are offered each morning and afternoon to avoid any conflict with regular Interim classes. Prerequisite: GREE 101. D. Noe. 11:00 a.m. to noon or 2:00 p.m. to 3:00 p.m.

History

W40 Vietnam and Cambodia: Legacy of Empire & War. This is an on-site course on the history and culture of Vietnam and Cambodia as it was affected by French colonialism and the ensuing war with the United States. Students prepare by reading a text on Vietnamese and Cambodian history and discussing the material in class before our departure. We then travel to the main cities and sites where French colonialism and the war with the United States made their deepest impact. Places of focus will include Hanoi, Hue, Hoi An, My Son, Ho Chi Minh City, the Mekong Delta, and finally Cambodia. Students tour the main historical sites and talk with former soldiers and government officials in order to understand the history and culture of Vietnam, including the American War, from the Vietnamese perspective. Students record their thoughts in a journal and write an essay based on that journal and their readings and classdiscussions. This course may fulfill an elective in the History major, if taken for honors credit and the International Development Studies major. This course will fulfill the CCE requirement. Course dates: January 4-22. Fee: \$3950. W. Van Vugt. Off campus.

W41 A Cultural History of Games. The aim of this course is to examine how humans have symbolically expressed their attitudes to their cultural surroundings in various board, table, and lawn games throughout the course of history. Throughout history, people have used games as a form of pastime and diversion. But games also functioned as ways to come to grips with the realities of life, and even afterlife, and were a way for human to symbolic meaning to the world around them. Each class will explore the historical setting of these ancient games, and thus the class will be an excellent introduction to the history of Ancient Egypt, Mesopotamia, India and Persia, Rome, early medieval Scandinavia, high medieval France and late medieval England. The reading will include Johann Huizinga's seminal work Homo Ludens. The class will explore the historical setting of these ancient games in ancient Egypt, Mesopotamia, India and Persia, Rome, early medieval Scandinavia, high medieval France and late medieval England. By engaging with historical world cultures in a practical and hands-on way and learning about the games they played, students will learn how games can serve as an important symbolic representation of the values of these societies. Readings will include Johann Huizinga's seminal work Homo Ludens. Students will write essays on topics of their choice, linking the games studied to the historical period in which they were created. This course may fulfill an elective in the History major. F. van Liere. 8:30 a.m. to noon.

294 Research Methods in History (2 semester hours). This course is an introduction to historical sources, bibliography, and research techniques, by giving particular attention to the different genres of history writing, the mechanics of professional notation, critical use of print and electronic research databases, and the development of critical reading skills with respect to historical exposition and argumentation. In this letter-graded course, evaluation is based on several reports, essays, and a final exam. Prerequisite: one course in history or permission of the instructor. NOTE: This is a required two-semester hour course in the history major. *W. Katerberg.* 2:00 p.m. to 5:00 p.m.

IDIS W45 Italy: Ancient & Medieval. K. Bratt, Y. Kim.

IDIS340 Field Work in Archaeology. B. de Vries.

IDIS 375 Methods & Pedagogies for Secondary Social Studies. R. Schoone-Jongen.

HPERDS

HE W10 Healthy Eating and Nutrition. All food was created good. Even so, we often make uninformed food choices. This course will explore the basic concepts of nutrition, including nutrient composition, "super foods", eating wisely in the dining hall, apartment cooking, and the effect our own choices have on our health, the health of a community, and local and worldwide food availability. We will take a concerted look at specific food-related issues of social justice, including our farming and production practices, our systems and infrastructure for food distribution to the poor, and the impact of hunger on health, learning, and quality of life. A significant portion of the course will be spent in the kitchen cooking nutritious and affordable meals on a college student's budget. Students will be required to eat together on several occasions. This course will NOT satisfy the requirement for HE 254, the regular semester Nutrition course for pre-nursing, exercise science, health education, and pre-professional students. Student evaluation will be based on quizzes, assigned readings, reflective essays, and completion of a recipe project. Materials Fee: \$20. J. Walton. 8:30 a.m. to noon.

HE W40 Women's Health. This course focuses on personal decision making in all dimensions of women's health. We investigate, discuss, and share women's health concerns ranging from cancer to sexuality. We focus on the unique physiology and anatomy of women, as well as on health care use and advocacy. Community experts, women's health videos, and women sharing their personal life stories add to our learning experience. Students are expected to complete assigned readings, complete 2 research summaries, make a class presentation, conduct a health interview, attend relevant January Series Lectures, and write reaction papers on each of the speakers. This course may fulfill an elective in the Health Education minor. *D. Bakker, A. Warners.* 8:30 a.m. to noon.

IDIS W15 River and Rainforest: Costa Rica Cross Cultural and Wilderness Skills Intensive. R. Walter-Rooks.

IDIS W22 An Inside Look at the January Series. R. Honderd, K. Saupe.

IDIS W24 Dancing the Elementary Curriculum. E. Van't Hof.

IDIS W30 Medical Terminology. N. Meyer.

CANCELED IDIS W37 Business Golf. J. Bergsma, P. Holtrop.

PER activities Courses (1 semester hour)

120A Scuba. # M. Christner. 6:30pm - 10:00pm (TTH)

127A Downhill Skiing. #+ D. Gelderloos . 2:00-4:00 (MWTH)

127B Downhill Skiing. #+ *D. Gelderloos* . 6:00-8:30 (TTH)

128A Ice Skating. #+ *M. Christner* . 9:30-11:00 (MWF)

- **137A Bowling.** #+ *J. Bergsma* . 10:30 -11:45 (MWF)
- **141A Rock Climbing**. *D. Bailey*. 8:30-9:50 (MWF)
- **141B Rock Climbing**. *D. Bailey*. 1:30-2:45 (MWF)
- **155A Ballet I.** *J. Genson* . 12:30-3:00 (MTW)
- **165A Ballet II.** *J. Genson* . 1:00-4:00 (THF)
- 173A Basketball I. J. Bergsma . 9:00-9:50 (MTWTHF)
- **174A Volleyball I**. *B. Otte*. 11:00-12:20 (MWF)
- **174B Volleyball I**. B. Otte. 1:30-2:45. (MWF)
- **180A Badminton I.** *J. Kim.* 10:30-11:20. (MTWTHF)
- **181A Badminton II**. *J. Kim.* 11:30-12:20. (MTWTHF)
- **182A Tennis I**. *M. Christner* . 1:30-2:45. (MWTH)
- **186A Gymnastics**. + *J. Bergsma*. 1:30-2:45 (MWTH)
- @ Elective only, does NOT fulfill core.
- # Fee required. Pick up information sheet in P.E. Office.
- + Class will meet off-campus.

Interdisciplinary (IDIS)

W10 Business & Engineering in China. China's emerging economy has a large impact on today's world, especially in business and engineering. During this interim students will spend three weeks in China meeting with business and engineering professionals who are part of this reshaping of the global economy. The course will include the major cultural and economic centers of China such as Beijing, Shanghai, Nanjing and Hangzhou. Students will engage with business and engineering professionals at approximately fifteen companies. In addition many important historic and cultural sites will be explored, including the Great Wall and the Forbidden City. Evaluation is based on a journal and a reflective essay. Open to sophomore, junior and seniors of any major. Preference will be given to students majoring in the business department or engineering department. This course fulfills the CCE core requirement. Course dates: January 6-26. Course Fee: \$3800. *C. Jen*, *L.Van Drunen*. Off campus.

W12 Galapagos: Evolution's Diamonds or Ecuador's DisneyIslands. As "living laboratories of evolution" the Galapagos Islands are one of the most unique and fascinating places on earth. Having an equatorial climate, these 'jewels' are also quickly becoming trendy vacation spots, generating local economies that are heavily reliant on the ecotourism industry. Participants in this course will investigate the biology of both the terrestrial and underwater worlds of the Galapagos Islands, and also study the economic and environmental issues and tradeoffs that are necessary to maintain these areas. Particular attention will be given to the application of Reformed Christian principles of biological and economic stewardship as tools for assessing the current and future status of this important natural area. Students will spend the first 3 days of interim on-campus attending lectures, then travel to Ecuador where we will spend eight days on the Galapagos archipelago and six days in mainland Ecuador. Daily excursions include hiking, boating, and snorkeling. Evaluation is based on a daily journal, active participation in course activities, and an exam. This course will fulfill the CCE requirement. Course dates: January 6-26. Fee: \$3897. *C. Blankespoor*, *S. Vander Linde*. Off campus.

W14 Partnering to Improve Health in Rural India. Working among the rural poor and marginalized by partnering with Indian village communities and expanding upon local knowledge and resources, this course provides practical application of the principles of community-based primary health care in a developing country. It helps students learn how to effectively meet the immediate and long term health needs of the rural poor, especially women. Students learn how a community-based primary health care (CBPHC) approach to health and development enables and empowers people and communities to take health in their own hands. They learn basic causes of problems and share values leading to greater humanity by showing concern for the rights and dignity of others with equity and justice. Sustainable community-based health and development will be discussed as students learn about the multi-tier approach to community health that is practiced in the Comprehensive Rural Health Project (CRHP) villages with community health workers providing the majority of primary health care and health education at the grassroots level. More complicated medical problems requiring in-patient treatment are referred to the government hospitals and public health clinics. Students participate in classroom sessions aimed at practical application of concepts, take part in field visits, discussion sessions with village health workers and community members, and work in clinics and hospitals. Topics addressed include the principles of community-based health and

development and understanding primary health care and its implementation. The course also includes sessions on leadership and personal development. Students are personally challenged by issues of justice, compassion and faith as they interact with Indian people in a rural setting. Evaluation will be based on reflective journals and participation. This course may fulfill an elective in the International Development Studies major. Course dates: January 5-26. Fee: \$2725. *C. Feenstra*. Off campus.

W15 River and Rainforest: Costa Rica Cross Cultural and Wilderness Skills

Intensive. This 19-day cross-cultural wilderness adventure features two primary phases. The first phase consists of a nine day backpacking descent from high elevation cloud forest to low elevation tropical rainforest. During this trek, students will master back country living and travel skills, gain introductory knowledge of the diverse ecological systems, and enjoy cultural and Spanish immersion experiences through multiple home stays with Costa Rican Families. Following the trek, students will trade backpacks for whitewater boats. Over the next eight days, participants will engage whitewater rafting skills, hard shell kayak instruction, and a Whitewater Rescue Technician course. The course will conclude with two days of surf instruction and exploration of magnificent natural beauty of the Manuel Antonio National Park along the Pacific coast. Along with gaining wilderness and whitewater travel skills, students will develop cross-cultural awareness as they interact on a daily level with remote Costa Rican communities and instructors. This course will fulfill the CCE requirement. Course Dates: January 4-23. Fee: \$3500. *R. Walter-Rooks*. Off campus.

W18 Chinese Medicine and Chinese Culture. Traditional Chinese medicine (TCM) with its practice in acupuncture and herbal remedies is becoming more and more popular in western societies including the US and Europe. With a holistic approach, TCM focuses more on improving the body's natural ways of healing rather than combating germs directly. Therefore it is very effective in dealing with chronic conditions such as migraine, asthma, and infertility. It has also been used to complement the use of western medicine (for example alleviating the side effects of Chemotherapy). Unlike most of the folk medicine around the world, TCM has a complete theory behind its diagnosis and treatments, and of course a 3000 years of history. In this course the students learn the theory and practice of TCM and observe patient treatments in local clinics. We will also discuss Chinese History and Chinese Culture in this class, as Chinese medicine is based on a wider cultural background of the Chinese people. Through field trips to Chinese restaurants, stores, churches and Chicago Chinatown, students will have first-hand experience of Chinese culture. The course consists of lectures, discussions, exercises, independent projects and field trips. This course will fulfill the CCE core requirement. Fee: \$250 to cover field trips and invited speaker fees. *A. Shen.* 2:00 p.m. to 5:00 p.m.

W20 L'Abri Fellowship. L'Abri Fellowship is a Christian study center situated in the French-speaking portion of the Swiss Alps. Founded in the 1950s by the Presbyterian missionary couple, Francis and Edith Schaeffer, it has become known as a place where people with questions about the Christian faith can go for instruction and counsel. Instruction is based on the tutorial system. Typically, students spend half the day in study, the other half working in the community. Up to five Calvin students may spend the month of January at L'Abri in independent study for interim course credit. Students determine the course of their study with their tutors on site. Evaluation for the course is based on a daily journal of readings notes and

reflections. This course will fulfill the CCE core requirement. Course dates: January 6-26. Fee: \$2300. *L. Hardy*. Off campus.

W22 An Inside Look at the January Series. The Award-winning January Series brings some of the world's greatest authorities in their respective fields to Calvin to speak on a range of topics. Participants in this course encounter a diversity of issues and perspectives by attending the January Series programs. Students enjoy additional opportunities to interact with the speakers by watching live interviews with several presenters and spending part of each morning in personal conversation with the speakers. In response to the values and ideas they encounter with each speaker, students are challenged to clarify and articulate their own worldviews. Course requirements include attendance at all January Series events, a short reflection paper on each presentation, and a research paper on one of the Series speakers or topics. *R. Honderd, K. Saupe.* 8:30 a.m. to 11:45 a.m. and 12:30 p.m. to 1:30 p.m.

W23 Better Cooking with Chemistry. Fundamental cooking techniques will be examined to improve understanding and reliable food preparation. This course will emphasize ingredient measurement, order of addition, and temperature control in food preparation. Flours, eggs, and fats will be discussed from a cooking perspective, but also from a health and affordability perspective. Students will prepare basic recipes not only to understand the principles presented, but also to understand how pre-existing recipes can be improved. In addition to learning and cooking, students will practice hospitality in serving each other. This course assumes no prior knowledge of chemistry or biochemistry. Students will use kitchen and laboratory equipment for cooking. Hospitality will be provided to the community through practicing learned cooking techniques at local outreach organizations. A detailed analysis of each laboratory group's product will be discussed with an eye towards improving technique through a scientific rationale. Student evaluation will be based on short quizzes, lab participation, cooking notebook, and an independent cooking project. Fee: \$50. *D. Benson, C. Tatko.* 2:00 p.m. to 5:00 p.m.

W24 Dancing the Elementary Curriculum. This course explores the use of creative movement as a tool for teaching elementary curriculum. Students "move" through elementary math, Bible, social studies, science and language arts content by creating improvisational activities and playing movement games. Students visit elementary classrooms, meet teachers, discuss curriculum, and custom-design movement lessons. In pairs, students teach their lessons to elementary children in a local school. Students are expected to complete and are evaluated upon the following requirements: a test upon readings, writing assignments, peer-teaching activities, creative game design, lesson-planning, and in-classroom teaching. No previous dance experience required. *E. Van't Hof.* 8:30 a.m. to noon.

W25 Experiencing God's Beauty. In his Confessions, Augustine cried out to God, "Late have I loved you, Beauty so ancient and so new, late have I loved you!" It seemed natural to Augustine and to many thinkers since Augustine to understand God as Beauty Itself, the source of everything beautiful. This class is devoted to sharing that experience of God's beauty, using the resources of the natural world, of visual art, music, poetry, film and stories. The class will also explore what follows from experiences of God's beauty in terms of how we decide what is beautiful, how we experience other forms of beauty, and how we think about the great themes of the Christian life. There will be several field trips to area museums and cultural sites, such as

Meijer Gardens, the Grand Rapids Art Museum, and some local churches. The course will require regular attendance, daily reading and/or viewing and/or listening assignments, active participation in class discussion, and the submission of a brief response paper. *L. Smit.* 2:00 p.m. to 5:00 p.m.

W26 Global Health. Health is a common human experience and a fundamental human right. Health problems, issues and concerns transcend national boundaries and must be addressed through cooperative action. This study of global health includes biological, social and environmental contributors to health and disease in populations around the world. Students will learn about characteristics, risk factors and effects of infectious and non-infectious disease, about world health inequalities, the role of nutrition and environmental factors on health, international health priorities and health payment systems in various countries. The health status of people in even distant parts of the world affects our own health and we affect theirs. As citizens of God's world Christians must be educated and informed in order to take action for their own health and the health of others. Students will develop their own Christian response to global health issues. Evaluation will be through small group discussions, presentations, a short paper and personal reflection. Sophomore standing required. *A. Ayoola*. 8:30 a.m. to noon.

W27 Introduction to Storytelling. This course offers an introduction to traditionally oral stories and the art of storytelling. Participants learn about the qualities of oral narratives as these contrast with written literature. Although the class depends on textual collections to survey the main genres of cultural oral expressions, students will tell and listen to each other story tell, riddle, share fables, tell tall tales, and share folktales. Participants consider the significance of Jesus' use of storytelling to teach. What may have been lost in the shift from the message told and heard, to a message received in text? Throughout the course, participants will consider storytelling as a spiritual activity of Koinonia, community building. The realization that Christians are called to be tellers of the Story, supplies urgency for growing abilities to listen, tell and make meaning with storytelling. Other emphases include the social-cultural root of stories as well as issues of voice and appropriation; the relationships of teller and listener as these elaborate narrative words into present relationships; storytelling as the development of a learning community; and storytelling as verbal art. Students develop abilities to tell a story. They develop understandings through experience and readings about the significant qualities of oral communication as it affects meaning-making, relationships and applications that can be made. Students discover themselves as persons with a story to tell. Students realize the vitality of oral language to language development and the teaching of reading; the role of storytelling in personal and community identity formation. Evaluation is based on student's participation as listeners and contributors in a developing oral narrative community; they submit a comprehensive written research project about a social/cultural body of narratives or a common oral narrative theme to they have researched; students develop and offer a storytelling performance. J. Kuyvenhoven. 2:00 p.m. to 5:00 p.m.

W28 Language Acquisition and Dialect. Sociolinguistic variation is not really "free", but rather governed in very systematic ways by both social and linguistic factors. This course is an overview of research in first and second language acquisition with particular focus on the acquisition of dialect. Some of the questions that we will focus on during the course are: when and how are dialectal forms acquired in childhood?, how are dialectal forms maintained during

schooling? And how well do adult second language learners acquire dialectal features of the L2 during study abroad? These questions will be examined drawing from a variety of methodologies including psycholinguistics, neuroimaging and computational modeling. This course will examine acquisition of varieties of English and Spanish (e.g. African American English, Northern and Southern Working-class English, Caribbean Spanish, US Spanish). The course will be taught in English. *K. Miller*. 8:30 a.m. to noon.

W29 Management of Innovation. The management of innovation is one of the most important yet difficult tasks facing organizations today. To form a competitive advantage and become sustainable, firms increasingly require managers and technical experts to work together to innovate in ways that create value for customers. Firms innovate by seeing opportunity in new combinations of ideas, resources, partners, and customers that lead to new market space. Managers and experts must choose a combination of these and develop and implement a model of organizing in order to seize the opportunity. The course addresses issues on how to develop and identify the right opportunity and how to organize for innovation and sustainable success. In this course, students examine organizational and strategic issues involved in managing technologies and innovation processes. The course emphasizes professional employees, creativity, project teams, leadership, interdepartmental relations, technological evolution, R&D strategies, and commercialization of ideas and technologies. The course weaves biblical themes such as creation mandate and stewardship throughout. Students engage the topic through classic and cutting-edge texts on managing innovation, lectures, and discussions. Students use cases to grapple with the complex and ambiguous situations that people face when managing innovation. P. Snyder, W. Wentheimer. 8:30 a.m. to noon.

W30 Medical Terminology. This course fulfills the prerequisite for pre-physical therapy and pre-occupational therapy graduate programs. The course will include basic medical word structure, organization of the body, word parts (roots, suffixes, prefixes), medical specialties, and case reports. Student evaluation will be based on chapter quizzes and a comprehensive final exam. *N. Meyer.* 8:30 a.m. to noon.

W31 Murder 101: Mystery & Detective Fiction. This course involves close study of mystery and detective fiction—mostly by American and British authors, though also by writers from Scandinavia and Latin America. The course focuses on reading novels and short stories, but students also watch and analyze a few film adaptations. Learning objectives include an understanding of the history and development of the genre; an understanding of how mystery and detective stories address cultural attitudes about crime and punishment, social problems, and human nature; and an ability to engage in a close reading of literary and cinematic texts. Student learning is evaluated by a reading journal, quizzes, a group presentation, and a short essay. *G. Pauley.* 8:30 a.m. to noon.

W32 Race, Class, Gender and Migration in the US. This course will examine the dynamics of race, class, gender and migration in the United States. Particular emphasis will be on how systems of oppression such as race, class and gender interact with migration and migration processes. Students will examine the ways that North American race, class, and gender relations affect newly arriving immigrants and their access to participation in community. The experiences of migrants and their communities and how they understand their social location

within the larger boundaries of North American race, class and gender relations will be central to the course. Particular emphasis will also be placed on issues of race, class, gender and migration in the urban setting. Students will participate in a research project that will include interviewing individuals in the Grand Rapids area and how they understand their positions in these larger structures. *G. Gunst Heffner, L. Schwander.* 2:00 p.m. to 5:00 p.m.

W33 The Human Voice. This course will investigate the intricacies of the human voice including the structure and function of the larynx, optimal vocal use, care, and performance, organic and behavioral voice disorders, voice evaluation and therapy, and individualized voice analyses. Students will be able to describe the anatomy, physiology, and science related to normal and disordered human vocal production. Explain the basic principles and methods related to optimal care and use of the human voice. Differentiate between organic and behavioral voice disorders. Describe the appropriate procedures for identification, evaluation, and treatment of voice disorders. Illustrate procedures and techniques for optimum vocal performance across time. Analyze and evaluate their own voice, including vocal habits, care of their voice, and its application to professional voice use when indicated. Student evaluation will be assessed through quizzes, exams, and participation in lab and enrichment activities. *B. Macauley.* 8:30 a.m. to noon.

W34 Theology & the Arts. This course examines the expression of theological themes in select musical works and films. Compositions studied include works by Haydn (The Creation), Bach (St. John Passion, St. Matthew Passion, Cantata 106), and Mozart (Requiem). Films analyzed include Babette's Feast, The Mission, The Seventh Seal, and Amadeus. Where possible, the relevant libretto or screenplay is read prior to listening to or viewing the work in question. Prerequisites: interest in theology, the arts, and their intersection; readiness to listen carefully and watch discerningly; and willingness to engage in discussion. Students will: acquire a knowledge of select theological themes, become acquainted with certain sacred compositions (and their composers), enhance their listening skills, become acquainted with certain films (and their directors), advance their skills in film analysis, exercise their skills in discussion and oral presentation. Students will be required to do readings, keep a journal, write a paper, engage in discussion, and participate in a final exam. *R. Plantinga*. 2:00 p.m. to 5:00 p.m.

CANCELED W35 Global Crisis? Global climate change, water scarcity, mineral depletion, pollution, habitat loss, species extinction and human population growth. Deeply interrelated, these topics already strain national political discourse and will impose difficult moral choices on our society. They are topics usually presented in the media with alarming overtones. Are doomsayers too pessimistic? Will technology and economic growth save us? What is an appropriate Christian response? By way of assigned readings and student research, the basis of the warnings will be examined and personal and societal responses explored with presentations and class discussion. Possible solutions and necessary adjustments will be part of a critical analysis. Each participant will explore one part of this topical web and produce a final, integrative paper. Specific case studies are encouraged. The instructor will serve as a guide, discussion facilitator and filter, not as an expert in all these complex topics. *S. Steenwyk*. 2:00 p.m. to 5:00 p.m.

CANCELED W36 Tolkien's The Lord of the Rings. Part of the power of J.R.R. Tolkien's epic story The Lord of the Rings is the fully developed mythological world of Middle Earth in which it is set. Its development began long before The Lord of the Rings was written, and was an intentional vehicle through which Tolkien could work out complex ideas about creation and art, evil and suffering, death, stewardship, service, friendship, and hope. Evidence of the power of the (nonallegorical) story is the degree to which readers find it an insightful commentary on current issues of faith, politics, and more. Students in this course read The Lord of the Rings in its entirety, as well as portions of The Simarillion. Occasional lectures illuminate the biographical and literary contexts for Tolkien's work. Most class time, however, is devoted to discussion of the daily readings, with the themes and applications that arise from them. In the final week, portions of the Peter Jackson film adaptations are viewed, accompanied by discussion of how the themes from the book are treated. Students are evaluated on participation, a reading journal and a final project. The work load for this course is heavy: reading assignments typically exceed 100 pages per day. Students registered for the course should read The Hobbit over the break and expect an extensive guiz on the first day. L. Molnar. 2:00 p.m. to 5:00 p.m.

CANCELED W37 Business Golf. Billions of dollars and thousands of hours are spent by corporate America on business golf every year. In this context, business golf can be a powerful tool for building relationships and developing business contacts. The student will demonstrate beginning golf skill and knowledge (basic skills, rules, and etiquette) along with an understanding of the fundamentals of business golf and successful networking. The course begins on campus with initial instruction in golf and business golf principles. Business topics addressed include: marketing, business development, event management, ethics, and networking. Students will evaluate and process the ethical/philosophical issues (ie. elitism, stewardship of time and resources) associated with golf and its function in the business world. The course culminates in Florida (Jan. 18-25) with on-course golf instruction and practice along with oncourse experience and interaction with business professionals on and off the golf course culminating with a one-day golf event. Students will participate and be responsible for the planning and management of the golf event. Student evaluation will be based on performance (beginning golf skill and business presentation), knowledge of golf rules, strategy and etiquette, and knowledge of selected business topics. On-course golf assessment, a business plan presentation to business professionals, managing the golf event, reflection paper, and a final exam will be used for evaluation. Course dates: Jan. 6-26. Fee: \$1865. J. Bergsma, P. Holtrop. Off campus.

CANCELED W38 How to Change the World. This is a course on the ethics of citizenship. There will be a special focus on the place of religious convictions and religious actions in modern pluralist democracy. The course consists of two parts. In part 1, students will read and discuss contemporary work on the ethics of public deliberation—to what extent should religious citizens offer their religious reasons in public debate in a pluralist democracy? Readings will be drawn from Robert Audi, Nick Wolterstorff, John Rawls, Jurgen Habermas and others. In part 2, students will pursue an individual project. Each project will contribute to the public political discussion of some issue in keeping with the most defensible set of norms as established in the first part. In other words, students will engage in public political participation as part of this course. Students will learn to develop a critical understanding of the obligations of citizenship in

public political deliberation, develop a critical understanding of the challenges that religious institutions and democratic institutions pose for one another in modern pluralist democracy and learn how to contribute to public political deliberation on important issues. Student evaluation will be based on a set of reading assignments, the individual project, and a final exam. *M. Jensen.* 8:30 a.m. to noon.

W41 Building Communities in Kenya. The founders of independent African nations sought to balance individual initiative and communal care in a way that would inspire both West and East. How can local governments, churches, and nonprofits work together toward this ideal? Challenged by poverty, disease, ineffective government, and inadequate infrastructure, why do some communities founder while others thrive? In this new Interim course, developed in collaboration with Christian Reformed World Relief Committee, students will learn how specific development and relief initiatives build stronger communities. The course will include visits and volunteer opportunities at rural community organizations including schools, medical clinics, AIDS hospices, and small-business projects, each locally directed but assisted by CRWRC field staff. On-campus introductory classes, readings on post-colonial political theory and modern African history, and fiction set in east and central Africa will provide a basis for student reflection on issues of justice, human rights, health care, and community development as they affect residents of rural Kenya. The instructor will coordinate on-campus classes and daily review and discussion sessions in Kenya; CRWRC staff will arrange activities in the communities visited. The result will be a deeper understanding of the challenges that face impoverished rural communities, the resources available to address them, and the initiatives and institutions that best utilize local strengths in service of long-term goals. Students will also be prepared to lead discussions in church and community groups after their return on the strengths and challenges facing rural communities in Africa; a plan for such presentations at a church or community group will be submitted by each student. A weekend visit to a game reserve will be included. Basis for evaluation: active participation; a journal of daily observations and responses to questions posed by the instructor. Dates: Jan. 6-7 on campus, Jan. 8-26 off campus. Cost (tentative): \$2950, including required immunizations. D. Hoekema. Off campus.

NOTE: Security concerns described in the US State Department advisory for Kenya are being closely monitored by the instructor and by the college's Travel Safety Committee, and final approval for this course will be given in November if it is determined that the areas to be visited are safe and stable.

W42 Business, Engineering & Religion in the Context of European Culture. In today's global economy, business practices, engineering design, product development, and product marketing must take the international market into account. This course introduces the students to the business practices and product development in the international market, focusing on business and R & D in Europe. Students will learn how the languages, history, culture, economies, regulations, and policies of Europe shape the business and design process through tours of businesses, engineering research facilities, manufacturing facilities, as well as discussion sessions with leading business executives and research engineers in Europe. A second theme of the course reviews the history of the reformation with visits to Wittenberg, Heidelberg, and more. Locations will include Amsterdam, Brugge, Paris, Trier, Munich, Nurnberg, Prague, Berlin, Leipzig and Bremen. Additional religious and culture locations will include visits to the

Begijnhof, The Hague, Versailles, Notre Dame Cathedral, Reims, Dachau, Neuschwanstein, and St. Vitas Cathedral. Evaluation will be based on a daily journal, class participation, and a paper regarding the cultural aspects of the course. This course may fulfill the Engineering Department's International Designation program. This course will fulfill the CCE requirement. Course dates: January 8-28. Fee: \$3,950. *G. Ermer, N. Nielsen.* Off campus.

W43 Ethiopia: Communities of Hope. This interdisciplinary course travels to Ethiopia. Its beautiful physical landscape includes the Rift Valley, mountain ranges, plains and the headwaters of the Blue Nile. Although Ethiopia boasts a surprisingly rich history and culture informed by two thousand years of Christianity, it is also challenged by severe poverty, minimal infrastructure and the AIDS epidemic. In the capital city of Addis Ababa, students celebrate Ethiopian Christmas with host families. Visits to orphanages and clinics highlight the reality of HIV-AIDS in Africa as well as current treatments and health services. In a 5-day trip to the southern region, students have first-hand exposure to Ethiopian culture, including a home stay in a rural community and a game safari. A second overland trip crosses a variety of geographical and cultural terrains in northern Ethiopia. The trip includes the historical attractions of Gondar, Axum and Lalibela. Students are personally challenged as the complex realities of Ethiopia are explored. Briefings occur at the US Embassy and a variety of successful health and development projects as well as both Coptic and evangelical churches. Students will have opportunities for interactions with Ethiopian educators, social workers, nurses, pastors, and development workers as well as with foreign missionaries. Students from all disciplines are encouraged to join. Student learning objectives: appreciate the scope and implications of HIV-AIDS in Africa; understand how geography, history and religion shape Ethiopian culture; enjoy first-hand encounters with inspiring Christian leaders and development workers; gain skill and experience for living and working in a variety of cultural settings different from our own; and strengthen their understanding of the complexities and challenges of development efforts In Ethiopia. Pretrip preparations include meetings in the fall and advance readings. Evaluation is based on student presentations before travelling, a test en route to Ethiopia, and directed journaling while in Ethiopia. This course may fulfill an elective in the African & African Diaspora Studies minor and the International Development Studies major. This course will fulfill the CCE requirement. Course dates: January 4-25. Fee: \$3750. J. Bascom, M. VanderWal. Off campus.

W44 Exploring Japan. (MAY) This 17-day trip around Japan will include most of the famous historical sites in Japan, including Kyoto, Nara, Hiroshima, and Hirado (where Christianity and Dutch trade first came into Japan). Daily life will be examined in large cities such as Fukuoka as well as in smaller towns like Hikone. Students will have the chance to do home stays with Japanese families in two different locations around Japan, including Hikone and Hirado. This will afford them the chance to learn much about daily life in this island nation. This trip also gives students the opportunity to improve their Japanese language skills, given the large amount of time devoted to home stays and close interaction with Japanese people. This course may fulfill an elective in the Japanese Language and Asian Studies majors and in the Asian Studies and Japanese Study Group minors. This course will fulfill the CCE requirement. One year of Japanese language preferred, although not required. The homestays are with Japanese families in which one member at least speaks some English. But the trips's value is enhanced for the students with Japanese language and culture background, and they are the principal audience for this course. Course dates: May 24 to June 10. Fee: \$3975. L. Herzberg. Off campus.

W45 Italy: Ancient & Medieval. The primary academic objective of this trip is to gain an understanding of the classical context in which western Christianity developed and flourished. Participants visit many sites in Italy, with special emphasis on the urban centers of classical, medieval, and Renaissance culture. On-site lectures address topics in Roman and early Christian history, religion, literature, art, and architecture. The itinerary includes Rome and its environs, Naples, Pompeii, Herculaneum, Sorrento, Amalfi, Palestrina, Perugia, Assisi, Ravenna, Bologna, Florence, Tivoli, and Ostia. Participants write a take-home test on background readings (available in October), prepare an oral report for delivery at an assigned site, keep a detailed journal, and write a comprehensive essay on one of the major topics covered by the course. This course may fulfill an elective in the Classics major and minor. Optional CCE credit is available for those who meet additional requirements. Course dates: January 5-23. Fee: \$3,825. *K. Bratt, Y. Kim.* Off campus.

W46 Transforming Cambodia. The goal of this class is to identify and experience the root causes of abject poverty in Cambodia. Issues to be engaged include food production capacity, land use trends, availability of adequate water or reasonable quality, availability of education and human health care. We plan to engage a variety of non-governmental organizations involved in supporting the holistic transformation of communities; CRWRC village projects enabling people to produce greater quantities of healthier food, water filtration and pumping methods, orphanages, Kindergarten classes, a hospital, and several evangelical churches, and the launch of a new Christian university (BGU). Students will contribute service-learning hours in these venues. Additionally, we will engage the historic and cultural underpinnings of the current situation in Cambodia. A visit of the Angkor Wat temples will lay an ancient historical foundation of Cambodian culture, followed by the Killing Fields and Tuol Sleng prison to assess the recent impact of the Khmer Rouge. Students will gain a clear understanding of what current living conditions are in Cambodia, how they have come to be as they are, what the impediments to change are, what can and is being done to make a positive and sustainable change to the average Cambodian citizen, or in other words, how to be agents of redemption in a deeply troubled society. This class is a cooperative learning adventure with Calvin College and Handong Global University (South Korea). Student evaluation will be based on participation with local culture, group discussion, individual journaling, and in a final report describing key features of their learning experience. This course may fulfill an elective in the International Development Studies major and minor. It also qualifies towards the requirements of the Engineering Department's International Designation program. This course will fulfill the CCE requirement. Course dates: January 5-25. Fee: \$3515. D. Dornbos Jr. and L. De Rooy, H. Kim (Handong Global University), S. Lee (Handong International Law School). Off campus.

W47 Who Owns the West? An Introduction to Federal Land and Resource Management. (MAY) The federal government owns almost one third of the total land area of the United States, making it the single largest and most important land owner in the nation. Decisions about federal land and resources are fundamentally political decisions, and political conflicts over these lands have become increasingly contentious. Federal land policy and management raise fundamental questions about conservation and environmental protection. What constitutes wise use of these public treasures? What "public" or "publics" should be served? What standards should we use to determine land health and quality? Course participants will examine existing answers to these questions and works with others in the West to identify new answers for the 21st century. The

class will travel to Oregon from May 24 to June 16, spending time in the high desert of eastern Oregon, the Klamath River Basin, the Cascade Mountains, and the Oregon coast. Students will learn how federal land agencies carry out their responsibilities to balance land and resource use with environmental protection and how these decisions impact the people and the landscape of the American West. In particular, they will learn how federal agencies make management decisions and how they as citizens can participate in the process. Students will be evaluated on the basis of their engagement with a wide range of guests—ranchers, federal employees, ecologists, etc.—their notes, and two short reflection papers. This course may fulfill an elective in the Geography and Environmental Science majors as well as the Environmental Studies minor. Course dates: May 24-June 16. Fee: \$2313. *J. Skillen.* Off campus.

W48 Monarchy: Hollywood v. Political Realities. Monarchy, possibly the oldest, and still a major political system in the world today, has traditionally been sported as the stuff of fairy tales and Hollywood fantasies. This course seeks to uncover the political institution behind these images by challenging film versions of monarchs. Students critique films such as The Queen and The Last Emperor portraying monarchs from European and Asian countries, and they read short biographies, view documentaries, and investigate the political effects of monarchs in particular contexts. Students discuss the historical evolution of monarchy, its association with Judaism and Christianity, the significance of an anointed as opposed to constitutional sovereign, the importance of monarchs in church and state relations, and the role of monarchs in the Reformation and the modern world. Attention focuses on why, in an age of liberalism, some nations (such as the United States) rejected monarchies, while other countries retain them. At the end of this course students should be able: (1) to exhibit comprehension of monarchy as a form of governance throughout history and knowledge about specific monarchs and monarchies discussed; (2) to discern the institutional relationship between Christianity and monarchy; (3) to demonstrate understanding of monarchy as a modern political system and how it functions in the government of nations discussed; (4) to critique film portrayals of particular monarchs and political events that shaped their rule. Student evaluation is based on regular attendance and participation in class discussion, daily journals analyzing films and classroom discussions, short guizzes, and a research paper based on a supplied list of films that compares a monarch's portrayal with the historical reality. This course may fulfill an elective in the Political Science major. K. Casey. 2:00 p.m. to 5:00 p.m.

CANCELED W49 Gender & Science. This course will take a two-fold approach to understanding the ever-changing roles of women in science by considering the biographies of women scientists and the questions posed by feminist theory regarding the way in which scientific inquiries are conducted. As we investigate the role of women in science from the 1500's forward, a greater understanding of the sources that contribute to the current situation will be gained. In addition, we will consider how the questions we ask influence the observed results. By drawing on first hand accounts and relevant literature, students will be encourage to challenge the current status quo and put forth constructive approaches for its improvement. This course will not require any prior scientific knowledge and should be accessible to students from a variety of disciplines. Students will be evaluated on the basis of participation in discussions, group presentations, several short essays, and journal reflections. This course may fulfill an elective in the Gender Studies minor. *C. Anderson.* 8:30 a.m. to noon.

CANCELED W51 Modern-Day Slavery & Gender Discrimination in Less Developed

Countries. Certain inherited beliefs, traditions, taboos, customs, and myths continue to play significant roles in marginalizing the poor, e.g., minority groups, and women, in terms of limiting their capabilities, participation, and effective representation in many spheres of life in many less developed countries (LDCs). Accepting, ignoring, or failing to challenge these discriminating informal institutions can diminish or nullify the effectiveness of proposed interventions, despite the well intentions of such interventions. The course utilizes the new institutional economic analysis that opens up a genuinely interdisciplinary discussion, involving political science, religion, sociology, and psychology, as well as economics. Formal and informal institutions play crucial roles in spreading (or eradicating) the practice of modern-day slavery, based on the societal reward and penalty systems that accompany such institutions. This interdisciplinary approach should attract students interested in economics, gender studies, history, international development studies, and political science. The course uses case studies from different LDCs to highlight the specific factors and dynamics such fallen institutions, such as modern-day slavery, Dowry, female genital mutilation, domestic violence, discriminating personal status laws, Dowry burning, and honor killing. The course also proposes solutions and intervention schemes to redeem the victims and end these practices of human rights violations, covers a Christian perspective, and analyzes the foundations for proper interventions to improve the capabilities, representation, and participation of these victims as agents of renewal in the different spheres of life in LDCs. Students will be evaluated based on attendance, class participation, journals, quizzes, presentations, and a course project. This course may fulfill an elective in the Gender Studies minor. A. Abadeer. 8:30 a.m. to noon.

W52 The Cries of Wolves. The final outcome of this course will be a production of the play, The Cries of Wolves. This will be part of the CAS Department's official 2009-2010 theatre season. The play concerns the culture and present situation of the Chechens in their ongoing struggle to be independent from the Russian Federation, and takes as its starting point the Moscow Theatre hostage crisis of October 2002. The play seeks to explore moral and ethical questions raised by extreme actions like hostage-taking, and their relation to indigenous culture and religious belief. Prerequisites: none, but casting will be by audition and selection of other members will be by interview. Students will gain experience of the process of mounting a fillscale theatrical production. They will understand the realities of a political situation and culture that is radically different from those of the U.S. and gain insight into the relationship between these realities and particular religious faith, in this case Muslim, and to find out what we as Christians can learn from this exposure. Student evaluation for those in the cast will be based on assessment by the two instructors of the quality of the performance work and the process leading up to it, largely through dialogue during the course of the work. Student evaluation for everybody else will be based on assessment of the degree of commitment to the project. For all: a journal recording the process and discussions of issues raised during it, to be assessed on the degree of detail and insight evidenced therein. This course may fulfill an elective in the Theatre major. M. Page. 8:30 a.m. to 5:00 p.m.

W60 Fluorescence and Applications. Fluorescence is a very important and practical phenomenon in science and every-day use. Fluorescent materials have high visibility. The success of the Human Genome Project was due in part to the use of fluorescence for automated gene sequencing. Green fluorescent protein (GFP) has allowed the detection of gene expression

in living organisms, and its discovery and application was recognized with the 2008 Nobel Prize. Fluorescence has applications in chemistry, biology, geology, physics, medicine, engineering and technology. This course will give students a better understanding of what fluorescence is and how it is used. What kinds of substances are fluorescent, what colors do they emit, and how can they be used in practical applications? Our primary activity in the course will be hands-on activities investigating aspects of fluorescence, with some class discussion and visits to local research labs that use fluorescence. Participants will get experience using a variety of scientific instrumentation, and they will also complete a fluorescence project of their own choosing. Students in science and engineering fields are encouraged to take this course. Student work will be evaluated based on lab and classroom participation, lab notebook/journal, project report and presentation. Prerequisite: CHEM 103, one college science major course or permission of instructor. *M. Muyskens*. 2:00 p.m. to 5:00 p.m.

W61 Creative Computing. Thirty years ago, visionaries exploring the radical idea of a "personal computer" did not conceive of a graphical, "user friendly" experience merely in terms of using software programs written by others. Rather, their goal was also that of making computer programming a much more simple, graphical, and intuitive activity, whereby the use of software created by others could lead readily and enjoyably to the creation of software of one's own. Moreover, they conceived of this process as a distinctly creative one, taking place in what was considered and designed to be a genuinely artistic medium. Sadly, the subsequent commercialization of "personal computing" by Apple and Microsoft replaced such notions with one that positioned consumers as tightly constrained, non-programmer "end users." As a result, for three decades, software programming has remained an overly cryptic, increasingly difficult, and predominantly algebraic process. Fortunately, remnants of that original vision have been kept alive by digital artists who, in rapidly growing numbers, have begun learning to program. Driven by an artistic goal of breaking out of the generic, constrained "end user" experience imposed by commercial computing, digital artists have been aided in recent years by the emergence of exciting new programming environments written by and for artists. These new programming environments such as "Processing" and Flash's "ActionScript," which will be the subject of this course, are not only liberating to digital artists. Rather, they make it possible for anyone – students in the arts or the sciences – to learn to program in a way that is more visual, creative, personally expressive, and genuinely enjoyable. Students will create numerous pieces of original software that generate works of graphical art, animations, and interactive experiences such as simple games. These will be exhibited online and/or via such mobile devices as cell phones and PDAs. Prerequisite: IDIS 110 or equivalent. Not open to students who have taken CS 104, 106, or 108 except by permission of the instructor. J. Nyhoff. 8:30 a.m. to noon.

CANCELED W63 Science Wars: Controversies & Consensus. Throughout history the emergence of new scientific information has often altered worldviews and culture. However, the acceptance of new data and theories is often a slow, contentious process. Consensus must be reached within the scientific community, and new information must be communicated to and accepted by the general public, government officials, and other leaders. The information age has greatly accelerated both the generation and dissemination of scientific knowledge, changing how the scientific community shares and reviews information and creating opportunities for the rapid spread of reliable and unreliable information and opinions to the public. The objectives of this course are to equip students with skills to evaluate scientific controversies and to communicate

about such issues with scientists, government officials, and the public. A variety of contemporary controversies with important pubic policy and lifestyle implications are examined: the health risks of toxic chemicals and tobacco, the evaluation of hazardous waste sites, the threat of pandemic influenza, endangered species conservation, and global climate change. Through these case studies, the processes of scientific investigation, peer-review, determination of causation, and development of consensus are examined. Implications for translation of scientific information into to public policy by governments and decision-making by courts are discussed. Scientific controversies of specific interest to the Christian community (e.g., evolution, intelligent design, and young earth creationism) also are explored. Course activities include readings, class discussions and debates, videos and other media, guest speakers, written projects, and oral reports. Prerequisite: Living World or Physical World core. *K. Grasman.* 2:00 p.m. to 5:00 p.m.

W64 West Michigan Food Systems. While most of us take for granted an abundance of global foods, concerns about sustainability are on the rise. This course explores how the tensions between global and local food systems affect food supply chains and consumers in West Michigan, revealing efforts that are necessary for the development and maintenance of safe, sustainable food systems. Video documentaries and readings introduce us to the complexities and concerns of contemporary food systems – for example, interconnections between food supplies and the political mandate to produce more biofuels – helping us to realize that food choices have scientific, ecological, sociological, economic, and ethical ramifications. Field trips enable us to explore behind the scenes the work of crucial players in West Michigan's food systems: researchers, growers, food processors, distributors, and grocers. As a result of participating in these field trips and group discussions, students write reflective papers on the challenges inherent in contemporary food systems and our responsibilities as caretakers of God's creation. Prerequisites: Living World and/or Societal Structures in North America core. Fee: \$120. *D. Koetje, H. Quemada.* 8:30 a.m. to noon.

W65 Biophysics. Biophysics is a growing discipline in which the tools of physics are used to elucidate biological systems. We'll investigate a number of topics, including why ants can easily lift many times their own weight, how bees fly, why the cells of an elephant are the same size as those of a chipmunk, and why cats have a higher survival rate when dropped from taller heights. An additional feature of the course is that no calculators are used. All results will be achieved by approximation and will help students develop estimation skills. The class is highly participatory and the hope is that students will make the art of estimation and the application of physical reasoning to biophysical systems their own, so that they can draw on these skills in the future. In addition to the above items, there is also a section devoted to the construction of simple biophysical simulations using Mathematica, though no previous experience is required. Evaluation is based on homework, tests and labs. Prerequisites: A semester of college physics or one year of algebra based physics in high school. *P. Harper*. 2:00 p.m. to 5:00 p.m.

W66 Milestones in Science & Religion: Italy & England. Italy and England present some of the most significant developments in science, religion and culture. Through on-site visits, this course explores the lives and times of prominent scientists from antiquity through the Scientific Revolution and the Age of Enlightenment, their seminal discoveries as influenced by culture, and

their struggles with the Christian faith and the church. Students begin their journey in Rome with an introduction to the history of western science and the Catholic church. Visits include the Colosseum, Museum of Medical Arts, and Vatican City. The class travels to Florence, Pisa and Venice, with particular emphasis upon Galileo Galilei (1564-1642), observing the 400th anniversary of his use of the telescope. Attention also focuses upon Galen, Leonardo da Vinci, Andreas Vesalius, and their European predecessors and counterparts. From Venice, the class travels to London, to explore the lives and contributions of Isaac Newton (1642-1727) and Charles Darwin (1809-1882), and their struggles with their faith and the Church of England. Students celebrate the 200th anniversary of Darwin's birth and 150th anniversary of the publication of "The Origin of Species." Attention also goes to Francis Bacon, Robert Boyle, John Flamsteed, William Harvey, Robert Hooke, John Hunter, John Snow, Florence Nightingale, and Alexander Fleming. Visits include homes, museums and historical sites in London, Cambridge, Oxford and Downe. Students read biographies of Galileo, Newton, and Darwin, and select writings of these individuals and other scientists. They learn about crucial experiments, clashing interpersonal relationships, and tensions between science/technology/medicine, culture and Christian faith traditions. Short daily lectures, group discussions and projects focus the issues. Visits to homes, science and cultural museums, cathedrals and universities enhance their learning. Evaluation is based on readings, discussions, journals, and an on-site oral presentation. Prerequisites: One course in the Physical World or Living World core, or permission of the instructor. CCE credit pending. Course dates: January 5-27. Fee: \$3,900. H. Bouma III. Off campus.

W80 The Human Experience of War. Much is written about the causes and outcomes of particular wars; about the successes in war of particular polities; about preventing or at least limiting wars; about the composition of the armies who fight them; about the quality of military leadership, and about the geopolitical consequences of particular victories or losses. But comparatively little attention is paid to the effects that the experience of war has on the people and societies who actually fight them. What effects does the experience of combat have on the combatants, on their families and fellow citizens, and on the political systems that they represent? This course will explore some of those effects so as better to understand the human experience of warfare. Why do people and societies engage in warfare? Do human beings harbor a deep-seated attraction to organized combat? Is the experience of combat at all rewarding to combatants? Is war experienced differently in different historical eras? Do particular kinds of weaponry or military organizations point to particular impacts on the people and political systems involved? Do gender or age differences matter in thinking about these questions? In this course students will consider a number of studies addressing these questions, both scientific and literary, in both film and print. Assignments will include regular class attendance and participation in discussion, three reflective essays, and a final examination. This course may fulfill an elective in the Political Science and International Relations major. Prerequisite: Sophomore standing and above. B. Stevenson, J. Westra. 8:30 a.m. to noon.

306 Introduction to Medieval Studies: Music, Liturgy and Ceremony in the Gothic

Era. This course examines the sources and contexts of music and liturgy during the later Middle Ages. The course will begin with an overview of the structure and content of modern chant books then focus on developments in music and ceremonial during the period in which the gothic churches at Chartres, Notre Dame of Paris, and the Abbey of St. Denis were under construction.

Aspects of architecture, artistic themes, and local traditions will be considered in conjunction with surviving manuscript sources from the period. The student who successfully completes this course will demonstrate familiarity with the basic sources of medieval liturgy, the methods used in interdisciplinary study of those sources, and the context for developments in liturgy, music and ceremonial during the period from the late 11th through the 14th centuries. Evaluation will be based on the student's successfully completing one research paper and a final exam. *T. Steele.* 2:00 p.m. to 5:00 p.m.

340 Field Work in Archaeology. Offered in conjunction with field work done by Calvin faculty or quality field schools of other universities. An on-site introduction to archaeological field work designed to expose the student to the methodologies involved in stratigraphic excavation, typological and comparative analysis of artifacts, and the use of non-literary sources in the written analysis of human cultural history. The Jan 2010 Interim field school involves students in a Documentation Season at Umm el-Jimal, Jordan, a well preserved town from the Roman, Byzantine, Early Islamic and modern eras. Students will participate in digital photographic documentation of structures, planning of both digital and actual site-museum presentation, interview-based recording of modern Umm el-Jimal village culture, architectural analysis and soil sampling, working as part of a team of professional archaeologists from Jordan, Germany and the United States. A lecture series on contextual subjects and lessons in Arabic will round our the week-day routine. Three weekends will be used for travel in Jordan, including a visit to Petra; a post session trip to Jerusalem is optional. Students will be taught/experience some or all of digital documentation; visual communication (virtual and actual display preparation); intercultural communication; Satellite-based site mapping; site conservation and preservation; historical architecture; soil analysis; Arabic language and current Middle East history will be experienced and learned informally. Students will learn by doing under the guidance and supervision of senior team members, who will turn in written evaluations to the course instructor (who is also the field project director.) Grading will be in the conventional rather than Interim system. This course may fulfill an elective in the International Development Studies major. This course will fulfill the CCE requirement. Prerequisites: IDIS 240 or permission of the instructor. Course dates: January 2-24. Fee \$2813. Optional post-course (extra cost) travel to Jerusalem, Jan 26-28. B. de Vries. Off campus.

375 Methods & Pedagogies for Secondary Social Studies. This course introduces prospective teachers to important curricular and pedagogical issues related to teaching history and social studies at the middle and high school level. It examines the links between a Christian understanding of human nature, pedagogy, curricular standards, lesson planning and curriculum construction, teaching resources, classroom methods, and assessment instruments. This course is required of all majors and minors in history, political science, geography, social studies, and economics in the secondary education program. Prerequisite: EDUC 302-303. *R. Schoone-Jongen.* 8:30 a.m. to noon.

International Development Studies

CAS W41 Who is the Global Samaritan? A. Richards.

HIST W40 Vietnam & Cambodia: Legacy of Empire & War. W. Van Vugt.

IDIS W14 Partnering to Improve Health in Rural India. C. Feenstra.

IDIS W18 Traditional Chinese Medicine in China. A. Shen.

IDIS W43 Ethiopia: Communities of Hope. J. Bascom, M. Vander Wal.

IDIS 340 Field Work in Archaeology. B. De Vries.

POLS W80 United Nations in New York. R.L. De Vries.

SPAN W80 Spanish in the Yucatan. O. Leder, M. Pyper.

Mathematics

W80 Curricular Materials for K-8 Mathematics. This course examines and evaluates K-8 mathematics curricula in the context of the NCTM Principles and Standards for School Mathematics. Although the emphasis this year will be on grades K-5, curricula at all grade levels will be examined. Some of the curricula to be discussed are Everyday Mathematics, Investigations, Math TrailBlazers, Connected Mathematics, MathScape, MathThematics and Mathematics in Context. Familiarity with a variety of K-8 mathematics curricula, with state and national mathematics grade level standards, and with state and national K-8 mathematics testing instruments is important for prospective teachers. Practice in designing exemplary mathematics lessons, making mathematics/literature connections, and solving mathematics problems are valuable skills for classroom mathematics teachers. Students are expected to complete assigned readings, to participate in and lead sample activities and lessons, and to contribute to small-group and whole-class discussions of the materials under consideration. Evaluation is based on in-class participation, presentation of grade-level lessons, several written quizzes, and written projects. Optional K-8 classroom observations can be arranged for the morning hours. Students should arrange their schedules so that they can spend some additional hours in the Curriculum Center. This course may replace Mathematics 110 in the elementary education mathematics minor for students who have completed four years of high school mathematics and who have received permission from their mathematics advisor. Prerequisite: MATH 222. J. Koop. 2:00 p.m. to 5:00 p.m.

W81 Elliptic Curves. The subject of elliptic curves is a beautiful example of the interconnectedness of the different branches of mathematics. The student will use geometry, calculus, number theory and group theory to understand the basics of the subject. In addition to the purely mathematical aspects, some applications such as cryptography will be discussed. There will be a brief discussion of how Fermat's Last Theorem, a 300 year old unsolved problem, was proved using ideas from elliptic curves. There will be daily assignments and a final project. The course meets the Interim course requirement for mathematics majors. Prerequisites: Math 256, or a 300-level mathematics course in which proof is emphasized. *J. Ferdinands*. 2:00 p.m. to 5:00 p.m.

W82 Geometry and Gravitation. This course is an introduction to the mathematics of Einstein's theory of gravity, also known as the General Theory of Relativity. Topics will include the geometry of special relativity (flat spacetime), Lorentz transformations, the equivalence principle, the geometry of curved spacetime, the geodesic equation, gravitational redshift, and Schwarzschild spacetime near black holes. Student evaluation will be based on homework and student presentations. This course may fulfill an elective in the Mathematics major. Prerequisites: MATH 261, or 231 and 232. *C. Moseley*. 2:00 p.m. to 5:00 p.m.

170 Elementary Functions and Calculus II. This course is a continuation of Mathematics 169. Topics include derivatives, applications of derivatives, and integrals. Historical and philosophical aspects of calculus are integrated with the development of the mathematical ideas, providing a sense of the context in which calculus was developed. Prerequisite: Mathematics 169. *C. Hampton* . 8:30 a.m. to noon and 2:00 p.m. to 5:00 p.m.

Music

W60 Performing Chinese and American Music: An Orchestral Experience. This study, presentation and comparison of American and Chinese orchestral and chamber music on site in China provides students with an opportunity to prepare and perform several concerts including chamber music (small ensembles), church music for use in worship, and music for larger orchestra. The orchestra shares music from our own continent - "Music from the Americas" and also learns from contemporary Chinese orchestral and folk musicians. Guest lectures and conversations with Chinese composers, music teachers, and conductors as well as readings that contextualize musical life in China provide a rich cross-cultural experience. Several nights of hosted stays, use of local transportation and joint concerts with local groups further provide for engagement of Chinese culture. Effort is be made to visit a wide variety of sites, concert venues, cities and churches. As performance will play a major part of the class, there will be significant time spent in rehearsal. The days prior to departure for China—Wed, Thurs, Fri and possibly Monday (Jan ,6,7, 8)—will include 2-3 hours of rehearsal daily. Additionally, there will be at least 4 lectures on issues relating to the repertory the locales of music and culture in China in the last 400 years. Sectional rehearsals will be led by Dr. David Reimer. Evaluation will be based on a paper, a daily journal, a chamber piece performed for the class with oral introduction and daily participation. Prerequisite: Participation in MUSC 171 A or B in the Fall 2009 semester. Course dates: January 6-25. Fee: \$3700. R. Nordling, D. Reimer. Off campus.

IDIS 306 Introduction to Medieval Studies: Music, Liturgy and Ceremony in the Gothic Era. T. Steele.

Nursing

<u>IDIS W14 Partnering to Improve Health in Rural India</u>. C. Feenstra.

IDIS W26 Global Health. A. Ayoola.

<u>IDIS W43 Ethiopia: Communities of Hope</u>. J. Bascom, M. VanderWal.

Philosophy

W10 Peaceable Kingdom. Though stewardship of the animal kingdom is one of the primary responsibilities accorded to human beings in the Christian creation narrative, the question of how best to respect the creatures under our care is one that Christians too often neglect to ask. This omission is especially unfortunate, given the mounting evidence of fallenness in the social and commercial practices that presently govern our relationships to animals. While large-scale agribusiness has increased consumer convenience, this convenience has come at a high cost, and not just to animals; confined animal feeding operations have had negative effects on the environment, on local and global commerce and agriculture in both rural and urban communities, and on public health. In view of these considerations, the purpose of this course is two-fold: first, to gain insight into the problem through a survey of the moral, environmental, and socioeconomic issues surrounding the treatment of animals and the allocation of natural and human resources by contemporary agribusiness and other industries that use non-human animals; and second, to take the initial steps toward becoming agents of renewal by workshopping an array of concrete approaches to addressing these problems (e.g., supporting sustainable food systems, community supported agriculture, cooking and eating lower on the food chain, exploring "locavorism," vegetarianism and veganism, animal compassion advocacy, etc.). Students will be evaluated on their responses to journal assignments as well as on their participation in class discussion, events, and fieldtrips. M. Halteman. 2:00 p.m. to 5:00 p.m.

W11 Moral Expectations in Film. From an early age all people learn that certain types of behavior are morally expected of them. Morality has its expectations, and it is a high priority that people learn what these expectations are. It is also a high priority that a knowledge of these expectations is passed on to each new generation. The course focuses on this rather neglected area of the moral terrain. The phenomenon of moral expectation is studied in its relationship with more familiar concepts like moral duty, moral responsibility, and supererogation. It is also examined in the context of the Christian life. A half dozen motion pictures will be shown illustrating moral expectation. Evaluation is based on a research paper and several short written assignments. One previous course in Philosophy is recommended but not required. *G. Mellema.* 8:30 a.m. to noon.

W40 Male Bodies in Current Culture. The biceps of male action figures have tripled in the last 20 years, and hyper-developed male muscles have featured heavily in recent movies such as "300"—a fact which has received a fair amount of attention from gender theorists, who posit this development as, in part, a backlash to the rise in female economic and political power. At the same time, many male fashion models and mainstream film stars are sporting thin, smooth bodies as the popularity of the 'metrosexual' look grows. All this might well make you wonder: what's going on?! Both of these looks require a dramatic increase in time, energy, and money devoted to the body, but do they stem from the same source? Are men finally feeling the pressure to conform to culture ideals of physical attractiveness that women have felt for millennia—and, if so, does this mean that the age-old philosophical identification between mind/men and body/women is finally breaking down? Evaluation is based on class participation, a readings journal, group presentations, and a final project. This course may fulfill an elective in the Gender Studies minor. *C. Van Dyke*. 2:00 p.m. to 5:00 p.m.

W80 Modal Logic. This course introduces students to modal logic. Modal logic is a new branch of logic allowing one to evaluate claims and arguments involving necessity, possibility, and subjunctive contingency. The course will focus especially on the logical theory and logic of subjunctive conditionals pioneered by Robert Stalnaker and David Lewis; it will then look at applications in philosophy or religion and epistemology. Evaluation is based on written daily summaries, class participation and a presentation. This course may fulfill an elective in the Philosophy major. Prerequisite: PHIL 173. *S. Wykstra*. 2:00 p.m. to 5:00 p.m.

IDIS W20 L'Abri Fellowship. L. Hardy.

IDIS W38 How to Change the World. M. Jensen.

IDIS W41 Building Communities in Kenya . D. Hoekema.

Physics

IDIS W35 Global Crisis? S. Steenwyk.

CANCELED IDIS W36 Tolkien's The Lord of the Rings. *L. Molnar*.

IDIS W65 Biophysics. P. Harper.

Political Science

W80 United Nations in New York. A first-hand study of major global issues before the UN; the UN's programs and activities to address them; and the perspectives and diplomacy of different countries on them. The heart of the course features two weeks of intensive briefings sessions with UN officials and diplomats of member states, plus three days of introductory sessions on campus. The topics of the semester range from political issues (e.g., nation-building in Afghanistan, peacekeeping in Sudan, nuclear programs in Iran and North Korea, combating terrorism, and the Israeli-Palestinian conflict) to economic and social issues(e.g., sustainable development, trade, HIV-AIDS, hunger, human rights, and global warming). On-site class discussions are integrated with the briefings. A list of required readings will be available in December. Evaluation will be bases on participation in the briefing and class sessions, a journal of all briefing session, and a reflective essay or issue paper. This course may fulfill an elective in the Political Science, International Relations and International Development studies majors. This course will fulfill the CCE requirement. POLS 207 or 309 is recommended. Course dates: January 6-26. Fee: \$1,795. *R. DeVries*. Off campus.

IDIS W48 Monarchy: Hollywood vs. Political Realities. K. Casey.

IDIS W80 The Human Experience of War. B. Stevenson, J. Westra.

IDIS 375 Methods & Pedagogies for Secondary Social Studies. R. Schoone-Jongen.

Psychology

W40 Interpersonal Relationships. This class will investigate interpersonal relationships—particularly one-to-one relationships—by examining their initiation, development, and patterns of interaction. Examples of questions we will be discussing are: How honest are we with others about who we really are? Why do we hesitate to let others know us at a deeper level? How can we most effectively listen to others? How does one's self-esteem impact relationship skills? How important are first impressions? Are some approaches to dating more "Christian" than others? How do we know if we are truly in love? How can we heal broken relationships? The initiation, breaking, and restoration of relationships is an example of the Creation/Fall/Redemption theme that will be developed in this course. Evaluation is based upon quizzes, journals, and class participation. This course may fulfill an elective in the Psychology major. *A. Shoemaker*. 2:00 p.m. to 5:00 p.m.

W80 European History of Psych and Religion. This off-campus, European, dual-discipline course will involve the investigation of sites, museums, archives, and institutes of those individuals who created and contributed to the fields of experimental, clinical and cognitive psychology. The best way to understand these famous scientists and their contributions to psychology is to see where they lived, breathed and worked, thereby permitting a greater appreciation of how their contexts shaped their viewpoints and their theories. Our students' immersion in the birthplaces of these distinctive schools of psychological thought will help them integrate different areas of psychology in order to form a deep appreciation for the roots of these fascinating fields of psychology. Texts include original readings (translated) by Wundt, Freud, Jung, and Piaget. Additionally, the origins of these "fathers of psychology" are in cities in which the Church Reformers lived and worked, thereby allowing students the opportunity to experience reformation history where it happened. Aspects of reformation history we will investigate include: the Reformation museum in Geneva, Zwingli in Zürich, the Heidelberg Catechism in Heidelberg and the Anglican Church in London. Selected Reformation texts are also included in the readings. Through this experience, we expect our students to articulate the central concept contributions of each psychologist and reformer studied, but more importantly, understand how the cultural and historical context shaped these theoretical perspectives and what that means for a student of psychology and religion today. Student cumulative learning in the course will be evaluated on active engagement in daily group discussions of required readings and site visits, daily reflective journal entries and a final presentation and paper summarizing their personal learning objectives. This course may fulfill an elective in the Psychology major. Prerequisites: PSYC 151 and REL 121 or 131. Course dates: January 6-26. Fee: \$3580. B. Riek, J. Yonker. Off campus.

W81 Knowing Yourself: The Psych of Self Understanding. This course is an introduction to contemporary theories and research about how people come to know and evaluate themselves and how self-judgments influence our emotions, actions, and aspirations. How can an individual's self-concept and self-esteem be assessed? What are the limits and distortions of self-understanding? How does one's self-concept originate and develop? How do people seek to maintain stable self conceptions and enhance their self-esteem? How does self-understanding contribute to the way we deal with anxiety, depression, and personal failure? What dynamics contribute to the disintegration of self? The course includes readings, lectures, class discussions,

films, and personal reflection on one's own self-concept. Students are required to take two written tests and to complete a narrative life history that demonstrates their ability to use appropriate principles and concepts from the course. This course is not open to students who have taken or plan to take Psychology 311. This course may fulfill an elective in the Psychology major and minor. Prerequisite: PSYC 151. *J. Brink, G. Weaver.* 2:00 p.m. to 5:00 p.m.

W82 Movies and Mental Illness. From The Three Faces of Eve, to The Silence of the Lambs, to What About Bob? Through various films in the horror genre, film has attempted to capture the essence of psychopathological affect, behavior, and cognition. This course traces concepts of psychopathology as presented in film. The focus is on various psychological disorders, emphasizing symptoms and perspectives of causation. Students view a variety of films that attempt to exemplify these disorders. The films are critiqued on accuracy and realism. The goal is to acquaint students with various psychological disorders and to develop critical-thinking skills in viewpoint film portrayals of psychological disorders. Students are evaluated on the basis of a group project and final paper. This course may fulfill an elective in the Psychology major. Prerequisite: PSYC 151, and 212 or equivalent. *R.S. Stehouwer*. 8:30 a.m. to noon.

Religion

W10 Urban Missions in New York City. Urban missions, ethnic and cultural diversity and race relations are inseparable dynamics of modern life and a challenge to the Christian Church as it seeks to fulfill the Great Commission. This course examines the overlap of urban living and human diversity by critically analyzing: demographic trends, the sociology of American race relations, historical and 'modern' missiological strategies, the Christian Community Development movement, and a Reformed-Christian perspective on urban missions, the multicultural cultural church and race relations. Classroom learning will be supplemented by travel to New York City to experience urban missions and incredible ethnic and racial diversity. Students will critically examine the history of CRC missions in New York City, visit contemporary urban churches, and study the complexity of ethnically diverse neighborhoods and the challenges of ministry in such neighborhoods. The students will keep a reflective journal of this experience and give a class presentation addressing a specific issue or aspect of urban missions and race relations. Students will gain an appreciation of the challenges of the missional church in the urban setting and exploration of differing approaches to those challenges. Students will be required to prepare for our interaction with Christian leaders and fully participate in that interaction, keep a journal of the interim experience and prepare a class presentation at the conclusion of the Interim. This course will fulfill the CCE requirement. Course dates: January 6-26. Fee: \$1445. J. Kooreman. Off campus.

W40 Anti-Semitism & the Holocaust. This course explores the historical, moral, and theological dimensions of the Nazi Holocaust. Students study the history of anti-Semitism that culminated in Hitler's persecution of the Jews, the historical account of the Holocaust itself, and the moral and theological issues raised by it. Resources used in this class are books on the history of anti-Semitism and the Holocaust, two books by Elie Wiesel, and various films about the Holocaust and its significance. The course also includes a mandatory four-day field trip to the United States Holocaust Memorial Museum in Washington, D.C. Evaluation is based on class discussion, a short written report, and a final exam. This course may fulfill an elective in the Religion major and minor. Fee: \$300 (approximate) for the field trip. *K. Pomykala*. 2:00 p.m. to 5:00 p.m.

W41 Birth, Sex & Death in the Biblical World. Why is sexual intercourse "unclean" according to Lev 15:18? If the body is in the grave, where is the "person" after death? In recent years, anthropologists and other social scientists have begun to examine more closely the ways in which human cultures conceptualize and organize the ordinary events of the human life cycle. Biblical scholars, too, have begun to consider these things by using the Bible, not as a theological textbook, but as a window into the lives of ordinary people in ancient Israel and the early Church. This course looks at various aspects of the human life cycle as they are described or discussed in the Bible. Material from other ancient Near Eastern cultures is also used to illuminate the thought world of the Bible. Some of the aspects of the life cycle covered are the reasons why people wanted to have children, theories of conception and fetal development, birth and the postpartum period, the female reproductive cycle, the structure of marriage, raising children, sexual activity and restrictions, celibacy, old age, death, and the afterlife. Students get to study biblical texts as reflections of a particular moment in human culture; look at and interpret various biblical texts for themselves; think about how various biblical texts might apply

today. Students write a paper which is based on the material covered in class. This course may fulfill an elective in the Religion major. *R. Whitekettle*. 8:30 a.m. to noon.

W42 Exploring Election. Have you ever struggled with the idea that God has chosen some to be his people and not others? This course engages students in an exploration of the often controversial biblical theme of election. The aim is to provide resources for a richer understanding of the biblical witness and theological approaches to election, and for thinking creatively about what it means for us as Christians today. In addition to the appropriate biblical and historical surveys, we will also see how poetry, novels, music and film help us to engage the current lively debates about the doctrine, and to explore its continuing relevance. No prior knowledge of the subject required. Evaluation is based upon class participation, presentations, a reflection paper and an exam. This course may fulfill an elective in the Religion major and minor. *S. McDonald.* 8:30 a.m. to noon.

W43 Learning to Pray Like Jesus. This course will study the prayers of the New Testament within their first-century Jewish context, what NT prayers can tell us about the believer's personal relationship to God, how one strain of ancient, desert monasticism developed contemplative prayer, and Martin Luther's devotional advice in his book A Simple Way to Pray. We will also wrestle with some of the theological questions raised by petitionary prayer: Can God be influenced? Does God ever change his mind? Does prayer make a difference in the world? Student evaluations will be based on two book reviews, class participation, daily prayer with at least one other class member and keeping a daily prayer journal. This course may fulfill an elective in the Religion major or minor. *D. Crump.* 8:30 a.m. to noon.

IDIS W25 Experiencing God's Beauty. L. Smit.

IDIS W34 Theology & the Arts. R. Plantinga.

Science Education Studies

214 Communication and Learning in the Natural Sciences. This course provides a systematic examination of communication and teaching strategies for natural science at the middle and high school levels including oral exposition, visual imagery, demonstrations, technology, and laboratory activities. Theoretical components include underlying educational theories, scientific literacy, and the unifying themes and practices in science. Practical components include methodologies for assessment, lesson and unit development, laboratory safety, evaluating teacher interaction patterns, and student presentations. Prerequisite: At least three courses in natural science. *C. Bruxvoort.* 8:30 a.m. to noon.

312 Teaching Science for Elementary Education Majors. A consideration of the methods, pedagogies, and strategies associated with teaching science in elementary and middle school. Curricular resources for teaching science, including the use of technology and written materials, are also examined with consideration of the criteria for their evaluation. Additional topics include assessment, benchmarks and standards, and lesson and unit development. The relationship of Christian faith to the teaching of science in the classroom is also examined. Field experiences during normal course hours are included. Students will be assessed on completed homework assignments, two quizzes, a written final, a completed unit plan and lesson plan, and observation of their teaching in a local elementary school. Prerequisite: EDUC 302/303 and at least one college science course. *K. Bergwerff.* 8:30 a.m. to noon and 2:00 p.m. to 5:00 p.m. (TTH).

Sociology & Social Work

W40 Sociology of the Future. People have been imagining the future since ancient times. However, what these images look like, how they have been represented, and the purposes for representation are always changing. Some visions are bleak, others are blissful; some are fanciful, others are realistic; some warn or inform, others entertain. This course explores dominant themes and contrasts across multiple genres of social forecasting, including but not limited to utopian and dystopian fiction of the late 19th and early 20th centuries; "sci-fi" film, radio, and television since 1900; and nonfiction trend studies produced by "futurologists" since 1970. Course participants not only consider the content of these works, but also the works in relation to the society in (and for) which they were produced. The course concludes with student presentations of their own social forecasts. This course may fulfill an elective in the Sociology major. *M. Hughes*. 8:30 a.m. to noon.

CANCELED W41 Wonder Woman. This course explores the wonders of the female body using a medical sociological perspective. It begins with a socio-historic examination of the female body, followed by an examination of each phase of the female life course. Topics include gender socialization, pre-pubescence, the beauty mandate, eating and cutting disorders, pregnancy and childbirth, middle-age, menopause, and women of age. Class sessions include lectures, videos, guest speakers, and student discussion. Objectives of this course are to raise the awareness of the wonders of the female body, study the female life course from a medical sociological perspective, identify social injustices that impact it, and inform participants of the realities of each life phase. Students will be evaluated on the basis of daily participation, comprehensive reading, class presentations, and a journal that encompasses both academic resources and personal reflection. This course may fulfill an elective in the Sociology major and the Gender Studies minor. *S. Bluhm.* 2:00 p.m. to 5:00 p.m.

IDIS W32 Race, Class, Gender and Migration in the US. G. Heffner, L. Schwander.

Spanish

W80 Spanish in Yucatan. Students spend three weeks immersed in Mexican culture and Spanish language in Merida, the capital of the state of Yucatan. Merida has a population of one million and offers a colonial past, strong Mayan influence into the present, and intensive globalization as it faces the future. It is the site of two universities and several mission organizations. Students live with Mexican families and attend daily lecture and discussion classes focusing on aspects of Mexican culture such as Mexican and Mayan history, the history of Catholicism and Protestantism in Mexico, and the current political and economic context. Students also participate in excursions to Mayan ruins and attend religious and cultural events. They keep a journal with notes from lectures and discussions as well as personal observations on Mexican culture and on their own experiences. Evaluation is based on satisfactory achievements of course goals, including participation in course activities, increased understanding of various cultural and religious phenomena of Mexico in general and Yucatan in particular, and growth in personal awareness and maturity—as measured by journal entries, a language journal, reflection papers, cultural reports based on interviews, and a final oral presentation. This course may fulfill an elective in the Spanish major and the International Development Studies major. This course will fulfill the CCE requirement. Prerequisites: SPAN 201 and permission of Spanish program advisor. Course dates: January 4-27. Fee: \$2100. O. Leder, M. Pyper . Off campus.

W81 Spanish Grammar Through Translation. Translation is an activity that combines the intellectual with the practical. As advanced students acquire more language skills they often are able to avoid difficult vocabulary and grammar structures, leading to gaps in knowledge and accuracy. This course asks students to observe and then translate characteristic Spanish words and structures. Through observation students will become aware of details in what they hear and read, and through translation they will practice manipulating what they have observed. The goal of this course is to use translation to provide advanced Spanish students with hands-on manipulation of grammatical, lexical, and cultural detail. Using a wide variety of texts and exercises, we will focus on lexical and grammatical detail in order to produce acceptable translations. This course will not produce professional translators but will make students aware of grammar details they did not know and it will provide them with interesting opportunities to improve their Spanish. The focus will be on written translation. Student evaluation will be based on daily written translations and a final exam. This course may fulfill an elective in the Spanish major or minor. Prerequisite: SPAN 301. *C. Slagter*. 8:30 a.m. to noon.

122 Intermediate Spanish. This course is the second part of the closely integrated 121-122-202 sequence, which fulfills the requirements for foreign language. Students attend large-group sessions in the morning and small-group sessions in the afternoon to acquire skills in speaking, listening, reading, and writing in Spanish and participate in discussion of cultural topics related to the Hispanic world. Chapter tests, vocabulary, grammar quizzes, compositions, oral presentations, and a final exam are required. *C. McGrath, L. Rodriguez, D. TenHuisen, A. Tigchelaar, P. Villalta.* 9:00 a.m. to noon and 1:30 p.m. to 3:00 p.m.

320 Business Spanish. An introduction to the terminology and standard forms of oral and written communication in Spanish relating to the fields of business and economics. This course

also considers the cultural and economic context of business practices in the Hispanic world. Designed for advanced students of Spanish. Prerequisite: Spanish 301. *S. Clevenger*. 2:00 p.m. to 5:00 p.m.

358 Aiding in the Spanish Classroom. The goal of this course is to give advanced students of Spanish the opportunity to experience first hand the teaching of foreign language and to develop their oral skills by leading small-group practice sessions completely in Spanish. Students enrolled in this class are an essential part of the successful teaching of Spanish 122. Morning activities include meeting with other aides and program director, observing master teachers, and preparing class plans, materials, and activities. During the afternoon aides lead their own practice groups and tutor students with problems. A daily journal, an activity card file, lesson plans, prepared material and quizzes, and classroom techniques are used to evaluate a student's competency in oral and written Spanish and in pedagogical skills. In addition, students are evaluated twice by the students in their small groups, and they are regularly observed by the instructor of Spanish 358. Prerequisites: Spanish 301 with a grade of B+ or above and permission of the instructor. *M. Rodriguez*. 8:30 a.m. to 5:00 p.m.

IDIS W28 Language Acquisition and Dialect. K. Miller.