



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 aims to 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. Luttikhuisen*. 2:00 p.m. to 5:00 p.m.

## **Biology**

**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 English. The relationship in Gnter







## 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

## Computer Science



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

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

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**





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 w/F5 12t8(ht m] TJ,m612 790048)2(ons,(r )-6a)4(nd mbnrFesty0003004ht m] TJ





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-

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

**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



## 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 perspective. 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. Each000912 8 792 reW\* nBT/F3 12 Tf1 0 0 1 232.25 529.39 Tm0 g0 G[(. Th



## **Education**

[IDIS W27 Introduction to Storytelling](#). *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

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 over again? And when we retell a foundational narrative, is what we are doing

**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 student to the study of stormwater management. Prerequisite: ENGR 305 and senior standing in engineering or permission of the instructor. A. Si, R. Tubergen. 8:30 a.m. to noon.

**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

## 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 French-speaking 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. VanderWal.*

[\*\*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: Gilte o(mi)-3(10.0002 Tfo(mi)nill)-wvs. Tr

## **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 class discussions. 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.*



**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**

development and understanding primary health care and its implementation. The course also includes sessions on leadership and p



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

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 E



**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 Silmarillion*. 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



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.





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**

**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

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

about such issues with scientists, government officials, and the public. A variety of contemporary controversies with important public 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 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





## 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**

**[IDIS W14 Partnering to Improve Health in Rural India](#)**. *C. Feenstra.*

**[IDIS W26 Global Health](#)**. *A. Ayoola.*

**[IDIS W43 Ethiopia: Communities of Hope](#)**. *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

**W80 Modal Logic.** This course introduces students to modal logic.

## 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 based on participation in the briefing and class sessions, a journal of all briefing sessions, 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





## 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



## **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.**

## **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

## **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 inte9u Tm0 g0 G[(W80 S)-3(p)-3

