FIRST YEAR SEMINAR COURSE PROPOSAL

UNIVERSITY OF MARY WASHINGTON

Use this form to submit **FSEM 100 topics** courses for review **or** any **other existing course** that you wish to have designated to meet the first year seminar requirement.

COURSE NUMBER:	**FSEM 100**		
COURSE TITLE:	**CONSUMER CHEMISTRY AND THE ROLE OF SCIENCE IN ADVERTISING**		
SUBMITTED BY:	K. Nicole Crowder	**DATE:**	9/13/10
This course proposal has the department's approval. (Put a check in the box to the right.)			**X**

NOTE: Please view the attached Call for Proposals or visit the First-Year Seminar blog at http://firstyearsem.umwblogs.org/ to see the criteria used to evaluate courses proposed to meet the first year seminar requirement. See the report entitled "General Education Curriculum as Approved by the Faculty Senate" for additional details.

COURSE DESCRIPTION. In the space below, provide a **1-2 sentence** description of this class. The description will be entered in Banner, and will also be used in other publications about the first year seminar program (such as the "Eagle Essentials" booklet).

Have you ever wondered how deodorant works or if a generic drug works as well as the name brand? This course will examine the chemistry behind common consumer products and investigate the use of science in advertising.

RATIONALE. Using only the space provided in the box below, **briefly** state why this course should be approved as a first year seminar course.

This course will expose students to the chemistry of consumer products through use of primary sources, scholarly articles, and examination of various advertising media. Emphasis will be placed on developing critical assessment skills in viewing internet information and the science presented in advertisements. Assignments are designed to have students research topics and support their ideas with facts from multiple sources, explore the chemistry behind common consumer products, use their evaluation of advertisements to in turn become the advertiser, and lead the class discussion on a topic of their choosing. These assignments will also develop their writing skills and oral communication. Classes will be largely discussion based, with limited presentation of necessary background material, and several in-class experiments to evaluate scientific claims and chemical concepts will be incorporated. By the end of the semester, students will hopefully have an appreciation of the chemistry involved in everyday products and will be more scientifically literate consumers.

SYLLABUS. *Attach a course syllabus.*

SUBMIT this form and attached syllabus electronically as one document to Jason Matzke (jmatzke@umw.edu). All submissions **must** be in electronic form.

Consumer Chemistry and the Role of Science in Advertising
FSEM 100
Spring 2011

Professor: Nicole Crowder
Office: 339 Jepson
Contact: ncrowder@umw.edu, (540)-654-1411
Lecture: MWF 2:00-2:50 pm, Jepson 313

Office Hrs: **M** 1:00-1:50, 3:00-3:50; **W** 3:00-4:00; **Th** 11:00-12:30; **F** 1:00-1:50

Required Materials:
Chemistry in the Marketplace, 5th ed., Selinger
Science, Sense and Nonsense, Schwarzc
Why There's Antifreeze in Your Toothpaste: The Chemistry of Household Ingredients, Field

Other readings will be posted on Blackboard.

Web Site: This course will make use of the Blackboard course management system. Please check here frequently as materials posted will include course announcements, assignments, and other course materials as necessary.

Content: Chemistry is everywhere, whether you realize it or not; it can be exciting, useful, or dangerous. This semester we will focus on consumer products and the chemistry behind how they are made and how they work. Discussion will also include an investigation of how consumer products are marketed and how the use of science in advertising affects how consumers view products. By the end of the semester, you will hopefully have gained an appreciation of the chemistry in the world around you and be a more informed consumer.

Course Objectives:
- Evaluate scientific claims and consumer products with an informed perspective
- Develop critical reading and thinking skills
- Develop skills necessary for intelligent, effective discussion of issues using facts to support opinions
- Develop oral and written communication skills in order to present information clearly and effectively
- Develop skills for obtaining and evaluating information from books, articles, video, audio, and internet sources

Grading:

	Points	**Total**
4 Papers/Assignments	100	400
Exercises	200	200
Class Participation	100	100
Group Project	150	150
Final Reflection Paper	150	150
		1000

Students with a C average or lower on **2/24** will receive a Mid-Semester Deficiency Report.

In-Class Behavior:

Please act respectfully in class of other students and myself.
This includes turning your cell phone, etc. off during class time, using laptops only for note taking purposes, and arriving to class on time. You are expected to participate in all activities and discussions.

Papers/Assignments:

The first paper will require you to spend time outside of class critically evaluating advertisements from multiple media sources including television and periodicals. Emphasis will be placed on evaluating how/if science is used as a marketing tool in these advertisements, the accuracy of the scientific claims, and the perception of science presented in the advertisements.

In the second assignment, you will be the advertisement designer for a new product, given the specifications and results of pre-market product testing. You will have the option to design either a print, audio, or video advertisement. A brief written and oral synopsis of your ad and how the different elements were chosen to portray the new product will accompany the advertisement.

The third paper will examine the fine line between medicine and poison through the investigation of so-called "Jekyll and Hyde Chemicals." Research for this paper will incorporate the primary literature and internet sources.

The fourth assignment will be an analysis of the ingredient list of a consumer product. Sources will be used to determine the chemistry of how the active ingredients work and why each component is included.

Exercises: Exercises will include in-class writing assignments, in-class experiments, and any out-of-class assignments beyond the 4 papers/assignments.

Class Participation:

This class is not a typical science class; there will be few traditional lectures. Instead we will work together to create a body of information about the chemistry behind consumer products and examine the role that science plays in the marketing of these products. This will be accomplished through class discussions and various class activities. Towards this end, everyone must participate in class activities. Participation includes attending class, being prepared for the day's activities, contributing appropriately to classroom discussion, listening to classroom discussion, paying attention to any videos or presentations, and participating in any in-class activities. Absences negate the possibility for you to participate in class.

Each student will begin the term with 50 class participation points, which have been allotted to you for attendance. Each unexcused absence will deduct 2 points. Students will be awarded 2 points for substantial, informed and appropriate contributions to discussion. Students will have 2 points deducted for inappropriate contributions. This includes violating discussion rules, impolite conduct towards another student, dominating discussion, sleeping during videos or presentations, etc.

You should notify me of an expected absence as early as possible.
Regardless of attendance, all assignments are due on the scheduled date. **No late assignments will be accepted without my prior consent.**

Group Project:

You will work in teams to do a thorough examination of a consumer product, or possibly a comparison of a group of products. Using our examination of products throughout the semester as a guide, your team will be responsible for leading either a whole class period or a portion of the class period. This may include discussions, writing assignments, showing of media clips, bringing in outside sources, lecture in powerpoint, experiments, etc. An annotated bibliography for the proposed sources for your class presentation will be due prior to your presentation date.

Final Reflection Paper:

Your final examination in this course is an assessment of your learning over the course of the semester. Using your papers, assignments, projects, etc., you will construct a portfolio of your work and describe how you have progressed from the first day of class to the last. This is due on **April 25th, by 5:00 p.m.**

Academic Dishonesty:

In accordance with the University's Honor Code, all work submitted for grading must be your own and be pledged as such by signing the complete honor pledge at the top of the assignment. Any electronic submission of graded work constitutes a pledged assignment. Academic dishonesty in any shape or form will not be tolerated. Suspected violations of the Honor Code will be addressed according to the policy established by the Honor Council. Please familiarize yourself with the University's policies of academic dishonesty: ignorance is not an excuse!

Disability Resources:

The Office of Disability Resources has been designated by the University as the primary office to guide, counsel, and assist students with disabilities. You will need to request appropriate accommodations through this office as soon as possible, and then make an appointment with me to discuss your approved accommodation needs. Please bring your accommodation letter with you to the appointment. I will hold any information you share with me in the strictest confidence unless you give me permission otherwise.

If you have allergies to any chemicals or other emergency medical information, please notify me as soon as possible.

Course Schedule: The tentative schedule that follows is how I see the course arranged. It is not set in stone; if there is material that the class wants to spend more time on, we will arrange the schedule accordingly.

Monday	**Wednesday**	**Friday**
1/10 Introduction, Syllabus What is a chemical?	1/12 The Chemical World Around Us *Selinger : Ch 1, 486-500* *Field: xv-xx*	1/14 Consumer Chemicals *Schwarzc: 124-128, 210-213, 225-231*
1/17 MLK Jr. Day **No Class**	1/19 Science in Advertising *Weed: "106 Science Claims";* *Pitrelli: "Science in Advertising* *(both on Blackboard)*	1/21Clinically Proven and Test Design *Strange: "Clinically Unproven";* *Villanueva: "Accuracy in Pharmaceutical Advertisements"* *(both on Blackboard)*

Monday	**Wednesday**	**Friday**
1/24 Discussion of Print/TV Ad Assignment **Paper 1 due**	1/26How Drugs are Developed *Selinger: 327-368; Schwarzc: 29-76*	1/28 How Drugs Work *Field: 163-188; Schwarzc: 73-76*
1/31 Vitamins and Herbal Supplements *Selinger: 68-70; Schwarzc: 4-5, 53-57, 215-217*	2/2 Toxicity: Regulation and Risk Assessment *Selinger: 17-42*	2/4 Effect of Dose Size: Jekyll and Hyde Chemicals *Schwarzc: "Good Drugs" and "An Image Problem" (both on Blackboard)*
2/7 Public Perception of Risk, Drug Marketing *Schwarzc: 77-134*	2/9 Antioxidants *Field: 14-20; Schwarzc: 3-10*	2/11 Presentations of Assignment 2 **Paper 2 due**
2/14Food & Drink Regulations, Food Processing *Selinger 67-88; Schwarzc: 1-19*	2/16 Natural v. Artificial Foods, Organic Foods *Selinger: 67-88; Schwarzc 19-29*	2/18 Analysis of Product Labels *Selinger: 427-466; Bring Field for in-class activity*
2/21Oils, Fats, and Cholesterol *Field: 91-102; Selinger: 90-103; Schwarzc: 6-9, 36-37, 167-168*	2/23 Sugar Substitutes *Field: 29-32, 75-87; Siegel: "Empty Pleasures" (on Blackboard)*	2/25 Diet Products *Articles posted on Blackboard*
2/28 Spring Break **No Class**	3/2 Spring Break **No Class**	3/4 Spring Break **No Class**
3/7Cosmetics *Field: 105-124; Selinger: 109-110, 126-127; Schwarzc: 204-205* **Paper 3 due**	3/9 Skin Care Products *Selinger: 110-114, 118-119*	3/11 Hair Products *Field: 199-205, 219-222; Selinger: 115-118*
3/14 Perfumes & Deodorants *Selinger: 119-125; Schwarzc: 128-131*	3/16 Sunscreens *Field: 2-12; Selinger: 131-140; Schwarzc: 199-206*	3/18 Dental Hygiene Products *Field: 239-244; Selinger: 127-130*
3/21 Soaps & Detergents *Field: 205-215; Selinger: 43-66; Schwarzc: 115-116, 163-164*	3/23 Stain Removers & Cleaning Supplies *Bring stain for in-class activity* **Paper 4 due**	3/25 Anti-bacterial Products *Field: 21-26* **Topics for group project due**
3/28 Diapers *Articles on Blackboard; in-class activity*	3/30 Herbicides, Fertilizers, and Insecticides *Selinger: 159-199*	4/1 Fabrics *Selinger: 283-299*
4/4 Metals *Selinger: 251-282*	4/6 Paper & Plastics *Selinger: 213-239; Schwarzc: 117-118, 124-128*	4/8 Green Products *Schwarzc: 94-101*
4/11 Team Project	4/13 Team Project	4/15 Team Project
4/18 Team Project	4/20 Team Project	4/22 Conclusions What is a chemical?
4/25 **Final Paper due by 5:00**		