

**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.

<b>COURSE NUMBER:</b>	<b>FSEM 100</b>		
<b>COURSE TITLE:</b>	<b>INFOGRAPHICS: TOOLS TO SHARE INFORMATION, DATA AND KNOWLEDGE</b>		
<b>SUBMITTED BY:</b>	Debra Hydorn, Anand Rao	<b>DATE:</b>	January 13,2011
<i>This course proposal has the department's approval. (Put a check in the box to the right.)</i>			<input checked="" type="checkbox"/>

**NOTE:** Click on the link for “first year seminar” at [www.jtmorello.org/gened](http://www.jtmorello.org/gened) 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 one to two 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).

If information is power then information graphics are the new power tools. In this seminar students will explore the cognitive, communication and aesthetic aspects of effective methods for visually sharing information.

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

Through the use of guided discovery activities and examples/case studies, students will learn about effective methods for visually sharing information. These activities will provide students with the opportunity to develop their own understanding of the cognitive, communication and aesthetic properties of information graphics design. They will then apply what they have learned and share their discoveries with each other through papers and presentations about infographics. The first part of the course will consist of explorations, including learning about visual literacy, ideograms, and designing for a specific audience. During the second phase of the course students will work in groups to describe how example infographics incorporate the different cognitive, communication and aesthetic properties and will create a rubric for rating the effectiveness of these graphics. They will also explore tools for creating infographics and will then create infographics using data provided by the instructor. The last phase of the course will consist of group projects for which they will collect their own data from primary sources and create appropriate infographics to represent their conclusions about the data.

**SYLLABUS.** Attach a course syllabus.

**SUBMIT** this form and attached syllabus **electronically as one document** to Warren Rochelle ([wrochell@umw.edu](mailto:wrochell@umw.edu)) or Maya Mathur ([mmathur@umw.edu](mailto:mmathur@umw.edu)). All submissions must be in electronic form.

**FSEM 100 Ingraphics: Tools for sharing information, data and knowledge  
Draft Syllabus for Fall 2011**

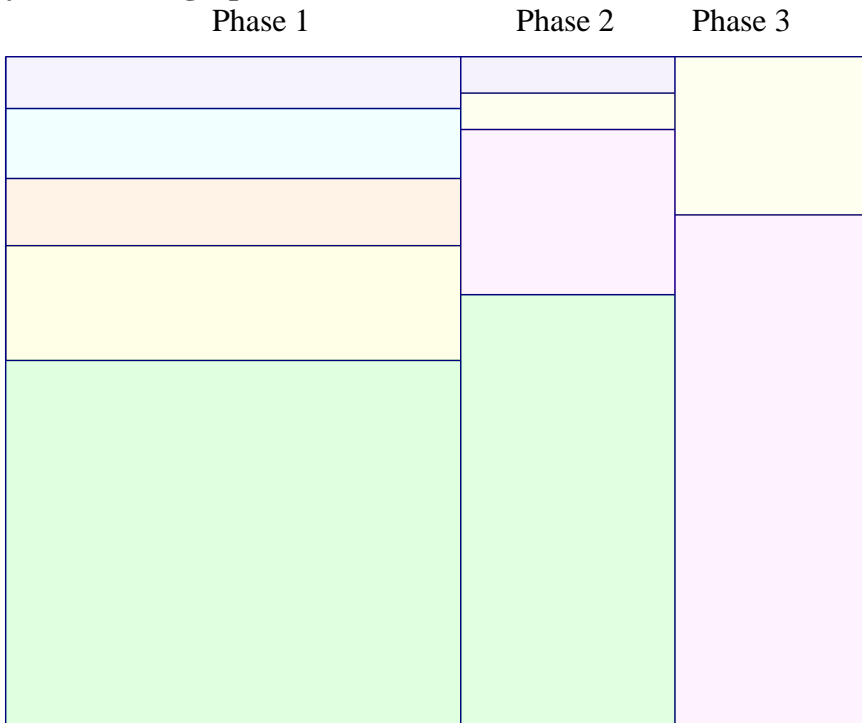
**Instructor:** Dr. Debra L. Hydorn  
**Office:** 132 Trinkle Hall, 654-1330, [dhydorn@umw.edu](mailto:dhydorn@umw.edu)  
**Office Hours:** MW 3 to 4 pm, TR 12:30 to 2 pm and by appointment

**Readings:** Class readings will come from books such as Information Design Handbook, by Jenn and Ken Visocky O’Grady

**Grading:**

Presentations (individual and group)	15%
Papers (blog posts, class rating rubric)	15%
Homework	10%
Projects (1 <sup>st</sup> 15%, 2 <sup>nd</sup> 25%)	40%
Quizzes	10%
Participation	10%

**Syllabus Inforgraphic:**



Week 1

Week 15

**Key:** Green = Explorations (Phase 1 – Concepts, Phase 2- Tools)  
 Yellow = Presentations and/or Blogs, Papers  
 Orange = History and Development of Ingraphics  
 Blue = Quizzes  
 Purple = Homework  
 Pink = Project

**Note:** The sizes of the boxes in the infographic are not meant to be exact representations of the number of weeks and proportion of time spent on these activities. The infographic should give students a good idea, though, of how the semester will proceed.

The first phase of the course will consist of exploration activities where students will discover and develop meaning for themselves about the cognitive, communication and aesthetic aspects of information graphics. Each of these activities will include an **oral report** by one group member and a **blog post** by another to share their groups' discoveries. Each group activity will be followed by one group researching that aspect more fully and presenting their findings to the class. The follow-up research will include a **presentation** where the group provides additional information and resources as well as a **homework** activity for the students to practice applying what they have learned. The instructor will then prepare short **quizzes** for students to demonstrate understanding of the aspects of infographic design. This section of the course will also include some discussion of the history and development of infographics. Example topics include visual literacy and ideograms.

Following the exploration activities students will take turns **presenting** an infographic-of-the-day and will lead a class discussion on how the designer of the graphic used the different aspects of infographic design. Students will also write a two to three page **paper** to summarize their findings. These presentations will continue throughout the rest of the semester so that each student presents two different infographics.

In the next phase of the course, each group will investigate a different infographics tool and will provide a **demonstration** with instructions on how to use it. They will also create a **homework** assignment for the rest of the class to practice using the tool. During this phase of the course the class will develop a rating rubric to evaluate infographics. The process will begin as a class discussion about what should be included in the rubric. Students will then each write a one to two page **paper** to indicate what should be in the rubric and why. The instructor will prepare a compilation of the students' rubrics and the final rubric will be designed by class consensus. The students will then use the rubric for a **homework** assignment to evaluate one or more infographics.

The first **group project** will follow the presentations of the infographics tools and development of the rating rubric. Students will be given data and asked to prepare an infographic with a specific goal for a specific audience. They will also prepare a **blog post** to describe the process they followed to create the infographic. The class will evaluate the infographics using the class rubric.

The last phase of the course will consist of the second **group infographics project**. For this project students will collect their own data and prepare infographics to present to the class. These projects and their **presentations** will serve as the final exam for the course. In addition to presenting their graphic, each group will describe the purpose of their graphic, the source for their data and the design choices made to create the graphic.

## Infographics Resources

### Books:

- All four books by Edward Tufte (The Visual Display of Quantitative Information, Envisioning Information, Visual Explanations, and Beautiful Evidence)
- Two books by David McCandless (Information is Beautiful, The Visual Miscellaneum)
- Information Design Workbook: Graphic Approaches, Solutions, and Inspiration + 30 Case Studies, by Kim Baer
- Visual Aid: Stuff you've forgotten, things you never thought you knew, and lessons you didn't quite get around to learning, Black Dog Publishing
- Visual Literacy: How to read and Use Information in Graphic Form, by Marcia Weaver
- Dictionary of Symbols, by Carl Liungman

Of these, the book by Jenn and Ken Visocky O'Grady is a suitable course resource. The others will be resources for class projects and investigations.

### Websites:

- For use in journalism: <http://vizthink.com/blog/2011/01/04/journalism-in-the-age-of-data/>
- For examples: Good.is, visualization.org, Seed magazine, Co.Design
- For data: Two example sites - Data.gov, EPA

### Infographics Tools (all but Excel are free):

- Excel
- Stat Planet
- Hohli
- Creately
- New York Times' Visualization Lab
- Many Eyes
- Google Public Data
- Wordle
- Tableau
- Gapminder
- Inkscape
- Many Eyes project (IBM)

### TED talks (for class discussions):

- Eric Barlow (ecologist, "Power of good visualization tools")
- David McCandless (author of books mentioned above)
- Hans Rosling (creator of Gapminder)