

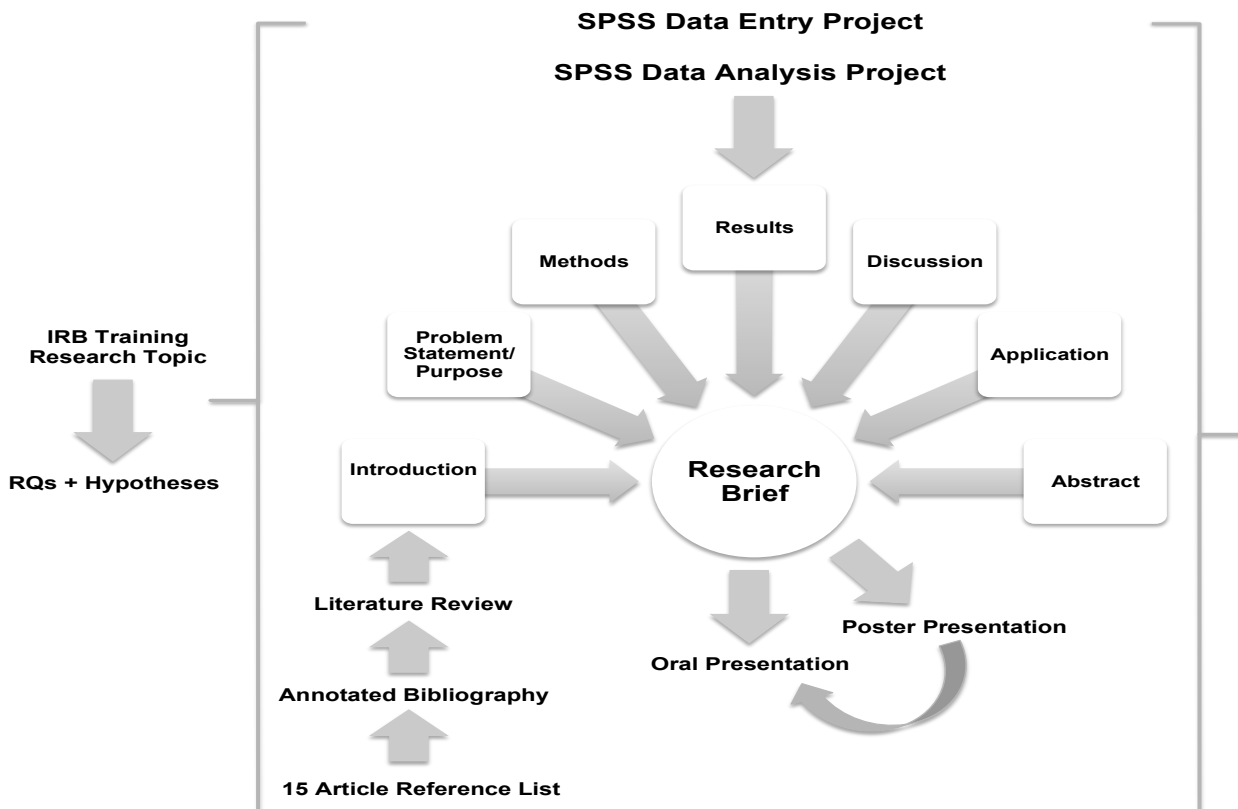
TEACHING METHODOLOGIES

My teaching makes use of a wide range of methods spanning traditional lecture methods to informal group-based classroom activities. In addition to providing the foundation knowledge students need to understand context, lead in-class discussions, critical thinking exercises, and help students discover and defend new ideas. In all of my courses, the goals remain the same: to create a authentic learner-centered environment that encourages critical thinking, facilitate application of learning beyond the classroom, and improve student's broader understanding of the interconnectedness of the field of nutrition.

In content-laden courses such a Nutritional Biochemistry, my roles as an instructor is more of a guide and **interpreter** to help students understand the material. In these courses I also coordinate critical thinking activities that give students the tools necessary to learn and apply the material beyond the classroom environment. In application-based courses such as Nutrition Research Methods that focus more on discussion, development, and application of ideas, I see my role as a **facilitator**. Overall, my courses are characterized by a high level of organization, student engagement, and encouragement of student achievement. Strategies and implementation details associated with the elements of my instruction are summarized below.

ORGANIZATION AND COURSE STRUCTURE

I feel it is imperative course material be well **organized**. Learning is enhanced when students can clearly see the “big picture” overview of the subject or course project. Then, students can better understand the details of a subject by breaking the material down into smaller units on which I can build on and clarify challenging concepts. In my courses I provide students with visual diagrams and written outlines of course content and major projects. I also periodically revisit these diagrams/outlines throughout the semester to provide students with a “**reality checks**” of their progress within the course.



“Dr. Carraway-Stage taught this course as effectively as possible. She is the most organized person I know. This is a demanding course that requires the majority of my time, but she does a perfect job of making expectations as clear as possible. If a student does not succeed in this course it is 100% the student’s fault. Multiple drafts are done for most assignments allowing students to get the best learning experience possible. You can tell the instructor cares about her students and their work.”

[Nutrition Research Methods, Spring 2014]

“Clearly organized. I enjoyed how she laid out the course week by week so it was easy to follow. It felt good to be able to cross things off the list as the assignments were completed.”

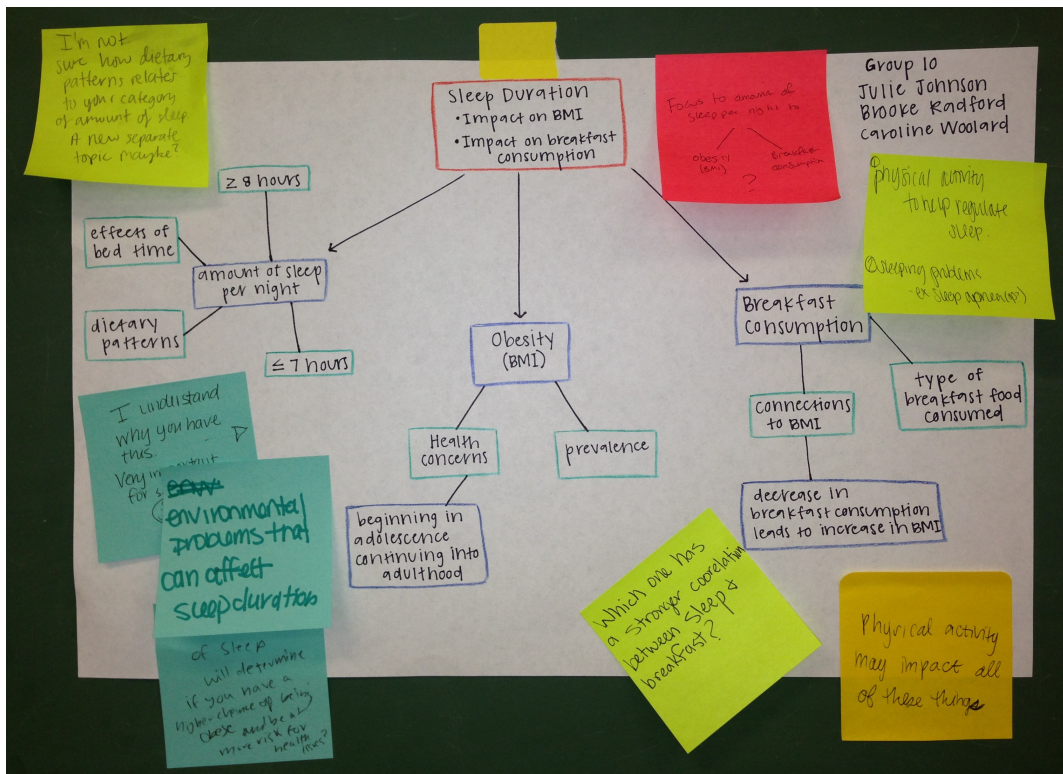
[Nutrition Research Methods, Spring 2014]

“The teacher was very organized and we always knew what was expected of us.”

[Nutrition Research Methods, Spring 2014]

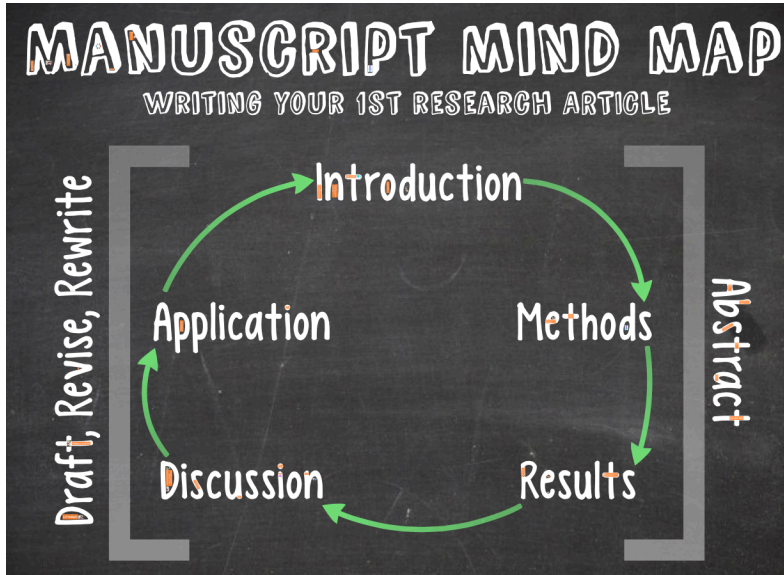
EXAMPLE INTERACTIVE CLASSROOM-BASED ACTIVITY

To further improve subject integration and students’ ability to see how details fit into the “big picture”, I to use **concept mapping**. These maps are graphical tools that help organize and represent knowledge (Novak & Canas, 2008). I ask students to draw their own concept maps to help provide me with insight into what they already know and to “mind map” ideas for major projects or assignments. This information helps me direct my teaching of more difficult topics. Typically maps are developed in reference to a particular question. However, the map can also pertain to the organization of a large body of knowledge such as brainstorming prior to composing a literature review as in the below picture and supporting documents for example.



TECHNOLOGY

The use of **technology in the classroom** can also be an effective learning tool. I use PowerPoint presentations for many lectures, but some material is also covered through the use of videos. For example, for Research Methods (NUTR 3500) I have incorporated a series of videos that guide students through the process of writing a manuscript. Clips of advice from previous successful students are included to help motivate students and improve overall self-efficacy towards completing their major course assignment.



I also incorporate the use of technology to **improve formative feedback**. Input devices that allow students to provide direct communication to the instructor creates an interactive learning environment. I become a “coach” - allowing for me to clarify points of confusion, identify areas that are going well, moderate discussion, and students to discuss and reach their own conclusion. The approach is also known to facilitate a wider range of learning styles and foster a community of learners focused on common goals and objectives. I also use and encourage the use of technology as a method to improve classroom-based critical thinking exercises and e. In Research Methods (NUTR 3500), lectures are provided to students in advance of class through **Tegrity**. This form of technology requires students to come prepared with a deeper understanding of content, which facilitate my ability to implement metacognitive exercises that encourage critical thinking around the course topic. Finally, I use technology to expose students to new resources that may be useful to them in the workforce. In all major course assignments I expose students to old and new technology from basic functions in Word Processor (e.g. track changes) to online collaboration tools (e.g. google docs, google hangout).

STUDENT EVALUATION, FEEDBACK & OPPORTUNITIES FOR PRACTICE

Students learn in different ways. Because of this, I use a number of assessment tools. In addition to tests (mixed format), students are evaluated by means of in-class participation, team engagement, and written assignments. Educational research has demonstrated that students that engage in sufficient focused practice achieve the most effective learning. I find that frequent practice can ensure students have thoroughly studied the concepts presented in my lectures. To incorporate focused practice into my courses I build in opportunities for practice and provide models of target performance. This type of practice required my students to review the content covered in lecture on a regular basis and encouraged them to think thoughtfully about the reasons behind their answers. I believe practice that is also combined with useful feedback enhances student learning. To address feedback in my courses I look for patterns of errors in student work, design frequent opportunities to give feedback, and often incorporate peer feedback. In Nutrition Research Methods, my students are required to write a research manuscript in brief based on a semester-long research project using authentic data from the Center for Disease Control's (CDC) Youth Behavior Risk Surveillance Survey (YRBSS). Throughout the semester, students are required to write drafts of each part of the manuscript in draft for peer and faculty review. Submission of drafts provides students will practice while enabling me to review student progress and provide feedback before the final project is submitted at the end of the semester. A few other examples of evaluation and feedback methods are briefly described below.

Rubrics provide more specific details regarding performance criteria. To encourage students to monitor and adjust their own work I require students to reflect on their work and use peer reviews using rubrics. Importantly, this scoring tool also helps me to explicitly communicate my performance expectations to my students for any large tasks I assign. A rubric serves as a grading guide and enable me to provide effective formative feedback to my students supporting long-term learning throughout the courses I teach. Using a rubric to grade will help ensure that my grading is consistent from student to student.

Peer Reviews are incorporated in my courses to allow students to receive peer-to-peer feedback on their writing assignments. The process provides them with insight into the peer review process professionals undergo and opens up the opportunity to receive feedback from individuals other than myself. Often the process provides students with new ideas and encouragement.

Exam wrappers help students identify errors they made, how effective their study strategies were, and what they intend to do differently to prepare for the next exam. Exam wrappers can identify areas of strength and weakness that will guide future studying behaviors, reflect on the adequacy of the preparation time and strategies used, and illustrate the nature of the errors made allowed students to address them prior to the next assessment. Wrappers allow students to process their graded exams more deeply. Additionally, upon reviewing wrappers, I may be able to gain insight on students' performance and what advice may be helpful to student when preparing for future exams.

DESCRIPTION OF TEACHING STRATEGIES

A lot of time and planning goes into the continual development of my syllabi. I consider the syllabus a “living document” that conforms to my teaching philosophies and goals as I continually grow as an effective instructor. My syllabi are clear, organized, and complete. Each syllabus gives my students detailed course objectives, expectations, and goals. Grading scales and course assignments/projects are clearly laid out. There are a number of activities in these classes that differentiate these classes from those of other professors. One example for each class is given below; complete syllabi for these courses can be found in Section 7 of this portfolio.

Nutrition Research Methods (NUTR 3500)

Nutrition Research Methods is a required 3-credit hour course for junior-level Nutrition Science students. The goals of the course are to:

1. Understand research process through reading **real-life examples** and engaging in a team-based project that takes them (**step by step**) through the process
2. Improve **technical writing skills** through **multiple writing assignment** (teach them how to, students receive **direct and timely peer/faculty feedback** on drafts prior to submitting final paper)
3. Improve **critical thinking skills** through: reading literature and thinking critically about content and/ or project applicability, engaging in a project that requires **higher understanding of statistical analyses** in order to **synthesize outcomes** and next steps

As outlined below, students were provided with in-class lectures, supportive on-line videos, in-class metacognitive-focused activities, and classroom demonstrations to emphasize course content. I designed the course to reflect an authentic view of the research process including identifying a research problem, reviewing and synthesizing the literature, writing research question/hypotheses, analyzing data, interpreting data, writing to communicate research findings, and disseminating findings through various venues.

Students are provided content about research and the research process, and are given the opportunity to apply the content towards a project using real nationally representative data. NUTR 3500 utilizes data from the Center for Disease Control (CDC) Youth Risk Behavior Surveillance Survey (YRBSS) to offer diverse and innovative research projects to students. Students select health-risk behaviors to study from the six leading causes of death/disability among youth. Students engaged in all parts of the research process including reviewing/synthesizing the literature, writing their research questions/hypotheses, analyzing and interpreting their data, writing a final research manuscript, and presenting their work in multiple venues (i.e. poster and oral presentation). This experience provided students with a “real world” opportunity to practice and demonstrate their critical thinking and research skills.

In addition to engaging students in the research process, I also emphasized the writing process as an integral component of both courses. Students engaged in writing through the semester by completing drafts and receiving direct feedback from peers and myself. These processes allowed students to think about their own writing process, areas in which they needed to improve, and gave them opportunities to edit/revise their work in a low-stakes environment prior to submitting their final written projects (e.g. Literature Review, Research Brief).

Nutritional Biochemistry (NUTR 3105)

Nutritional Biochemistry is a required 3-credit hour course for junior-level Nutrition Science students. I will teach this course for the first time in Spring 2014. Students will be provided with in-class lectures, supportive on-line videos, in-class metacognitive-focused activities, and classroom demonstrations to emphasize course content. When applicable, I highlighted the connection between course content and past student learning. Supportive materials for NUTR 3105 will be added Summer 2015.