Introduction: Since 2006, faculty science librarians at the University of Florida have developed and taught a three-credit Honors program course entitled “Discovering Research and Communicating Science”. The goal of this course is to prepare students to begin undergraduate research, and thus it teaches skills often overlooked in advanced electives: searching and evaluating scientific literature, preparing a scientific poster, and writing scientific abstracts and papers. Guest researchers visit throughout the semester to talk about research opportunities, success in research, and other professional opportunities.

“Discovering Research and Communicating Science”

Literature Searching Quiz: Students engaged in a database search skills quiz tailored to individual research interests of group members.

Question 1: (4.5 points) - Published
1a. Using PubMed, did a MeSH search on Transmissible Sporotrichum Brescia. Is this the MeSH term that comes up? (0.25)

1b. Under this MeSH term’s definition what is the disease characteristics? (1)
1c. Are there narrower terms that are used (like this MeSH term) list one. (0.25)

1d. Use the MeSH Search Builder to perform a PubMed search using the MeSH term you found in 1a and combination. How many hits did you find? How many are in English? What is the title of article by P.P. Library from 2012? What group of people does this article discuss? (1)

Question 2: (4.5 points) - Confirmed

2a. Using OvidFind on an Ovid Reference search for anfigue for fat white blood cells syndrome. Choose the reference set that contains both concepts and tell me how many articles you get after removing duplicated (0.25 point).

2b. Find the article that talks about anfigue testing and high-throughput screening. The title has been published in Spanish. How many citations are in this article? (0.25)

2c. Find on Ovid Substances search on the compound list given a period of 40s and draw in structure (1 point)

2d. Look at the substance information page, how many references are in (0.25 point) ScFinder for the substance you drew in 4c (0.25 point)

Research Proposal Assignment: Based on the NSF grant application, students’ final assignment was to propose an original research project. Buildup to this included a subject-mapping poster, an annotated bibliography, and a final oral presentation. Through this process, students learned not only critical thinking and scientific method analysis, but also familiarity with the major communication methods employed by scholarly societies.

- Most in STEM-related disciplines
- Majority of respondents remained interested in research & STEM grad school
- Majority would recommend the class

"It was a great way to prepare me for the work I did during undergrad and beyond. The research and critical thinking skills we developed helped me in every lab I have worked in since. Whether it was a research setting, coursework, and even now as I am in the work world.” - 2006

“...I think both of the instructors were excellent. They both were very helpful during the class, and they were very accessible outside of class as well. They did a great job of teaching and leading the class. All of the assignments had a purpose and behind them. Overall, I thoroughly enjoyed this class.” - 2011


Abstract Writing: After sessions on searching literature databases and a visit from the Writing Center, students found articles of interest, wrote abstracts summarizing them, and discussed them online in small groups either online or face-to-face.

Branching Out: What elements can be applied to standalone instruction or other course designs?
Demonstrate Relevancy: Discuss the scholarly research process and ethics early on and show why credibility is important.

Student-Focused: Allow students to choose their own topics. This self-direction transforms assignments into personalized, relevant experiences that are particularly meaningful for students pursuing undergraduate research positions.