Marine Invertebrates

CAS BI 547

Oral Presentation Guidelines

THE PRESENTATION

Length of the talk
- Your talk should be ~15-25 minutes long.
- Three-five minutes of questioning will follow each talk (even more if people find it interesting!).
- Talk length will be affected by the number of individuals in the research group. Smaller groups will tend to give shorter talks.

Contributions from team members

Delivering the talk:
- In multi-member groups, each team member should speak for an approximately equivalent time.
- Attempt to make any transition(s) between speakers as smooth as possible.
- If shifts between speakers correspond to topical shifts in your talk, they will seem more natural. Introduce the speaker who follows him or her and the topic they will cover (e.g.,"now, Jim will describe how marsh sediment smells.....").
- All participants should be ready to field questions during their portion of the talk and after the talk is over.

Preparing the talk:
- Each member of the team should take primary responsibility for preparing those slides that he or she will be delivering during the talk. This includes obtaining the graphics, producing any graphs or charts, citing source material, verifying the factual accuracy, and authoring the narrative.

The Presentation File
- Your talk should take the form of a computer presentation (PowerPoint, Keynote file or comparable) that will be projected from the overhead projection system in the Biology Department seminar room in BRB 113..
- The talk should be cohesive as a whole, and the formatting of the slides should be consistent from section to section (speaker to speaker).
- All presentations will be loaded on a single computer prior to the first talk. Prior to coming to class on the day of the presentations, please burn a copy of your talk on a CD or copy it to a flash drive. In addition, you should provide me with a hard copy of your talk (slides + notes).
- Using the notes feature of Powerpoint, write out your talk. You may write it in outline form or in complete sentences. This will force you to think about what you are going to say, and it will provide me with a hard copy of what you said (or intended to say) during your talk. **The person who will be presenting a given slide should assume primary responsibility over the notes for that slide. The relevant team member's name should be indicated in the notes.**

CONTENT

Introduction.

- Assume that your audience consists of biologists from different disciplines. Tailor your background material to this audience. Assume that your audience has a good grasp of basic biological terms (DNA, natural selection, parasitism), but don't assume they any knowledge of background specific to your system (e.g., the life history of *Edwardsiella, the* range of pH in a salt marsh, etc..)

TELL YOUR AUDIENCE WHY YOUR RESEARCH IS INTERESTING.

- Start with the broader context (e.g., the importance coastal estuaries), and gradually narrow your focus to your particular model system. Why is *Nematostella* potentially informative about the health of estuaries or the evolution of stress-response. How does your work fit into a broader body of research, and what unique contributions might you be able to make? What are the potential implications of your research?

Research Objectives / Specific Aims

- You should structure your talk around your research objectives. What hypotheses did you test? Discuss potential outcomes before proceeding to describing the experiments and the results. Which outcomes would be support which hypotheses?

Methods:

- Describe your research methods in reasonable detail. Animal collection is part of the methods

Results.

- Clearly describe all images, graphs and tables (graphs are superior to tables in most cases). What organism are you showing? What is the viewer's perspective? What is the magnification? What is depicted on a given graph? What are the axes? Have you demonstrated the results to be statistically significant? What statistical tests did you use?

Conclusions.

- Return to the research questions you introduced earlier in the talk and discuss whether the data support or contradict a particular hypothesis. How much confidence should we have in a particular conclusion? What caveats should we be aware of?

Discussion / Future Directions.

- How do your specific findings relate to some bigger picture? What future experiments would you like to perform, and what could they reveal?

GRADING:

I RESEARCH CONTENT. (50%) [group]

Introduction (5%)

- Have you properly introduced the biological questions, their broader significance, and the reasons for using the experimental system under study?

Experimental design and data gathering (20%)

- Were your experiments and observations well thought-out and carefully executed?
- Were your experiments properly controlled?
- Are you aware of potential problems?
- Were you meticulous about data entry and record keeping?
- Have you explained the methods used and the design of the study with its possible outcomes?
- Were your observations and experiments motivated by logical questions and hypothesis?

Analysis (20%)

- Have you adequately analyzed the data?
- Did you use appropriate statistical analyses?
- Are your interpretations reasonable and sound?
- Have you extracted all the insights that are afforded by the data?

Discussion (10%)

- Have you discussed the broader significance of the data?
- Have you highlighted the strengths and weaknesses of the study?
- Have you indicated compelling and logical future directions?

GRADING: (continued)

II STRUCTURE AND CONTENT OF THE PRESENTATION FILE. (20%)
Overall organization and cohesion of the presentation (5%—GROUP)
Text on the slide (5% —INDIVIDUAL)
- Is the writing legible?
- Spelling and grammar.
- Do the titles capture the audience's attention while explaining the content of the slide?

Images (5% —INDIVIDUAL)
- Are all the necessary images present---show the organism, show the data, *etc*.....
- Did you simplify any of the explanation by making your own basic graphics? (A good idea—impresses the instructor, unless these original graphics are really lousy–that makes the professor's eyes tear up, with tears of sadness, not joy.)
- Are these graphics clear?
- Have you properly cited the source for any graphics you borrowed?

Notes (5% —INDIVIDUAL)
- Is what you are planning to say necessary, sufficient, clear, and engaging?

GRADING: (continued)

III ORAL PRESENTATION. (15%)
Speech quality: (5% —INDIVIDUAL)
- Speak slowly.
- Speak clearly.
- Speak loudly.
- Don't say "Um".
- Make eye contact with your audience (the whole audience, not mainly the professor).

Speech content: (5% —INDIVIDUAL)
- Explain each slide as you present it. Don't leave us wondering what the slide means.
- However, don't speak into the screen (unless you have something to say to the screen—in this case, you should whisper so we don't overhear and realize that you are the kind of person who talks to screens).

Question and Answer (5% —INDIVIDUAL)
- Anticipate likely questions and have a solid working knowledge of the topic.
- Address the question directly—don't evade it. If you don't know, don't hem and haw —just admit it and go on.
- If a question cannot be answered at present, suggest how it may be answered in the.
- If the question allows it, feel free to engage in educated speculation. Don't be a windbag though. Brevity is beautiful.

IV. ATTENDANCE, EFFORT, & CLASS PARTICiPATiON. (10%)