

Special Topics in Biological Sciences: Genetically Modified Organisms

Choosing a Reading for Discussion

40 points

In the last half of the semester, you will lead a 30-40 minute discussion of an approved reading during one class meeting. You choose the reading, following the guidelines below. More details about the discussion are provided in a separate handout.

So that we can read papers that represent the breadth of issues related to genetically modified organisms, each person in the course will select a reading representing a different central theme. Your theme will be determined by a drawing several weeks before your paper proposal is due.

The themes are:

- Safety of GM foods
- Consumer attitudes about GM organisms
- Hybridization of GM and non-GM organisms
- Future role of GM foods in world hunger
- Human nutrition and GM organisms used as food
- Allergenic potential of GM foods
- Impact of GM crops on natural communities
- Biological control of pests using GM organisms
- Impact of GM fish in aquatic or marine communities
- Uses of GM organisms by the pharmaceutical industry
- Bioremediation using GM organisms
- Role(s) of GM organisms in future energy production
- Role(s) of GM organisms in bioterrorism
- Gene therapy in humans
- Cloned organ donations
- Controlling the human germline

Some of these themes clearly overlap. That's fine. In fact, the overlap should serve to help us make some connections from theme to theme as we progress through the course.

It's imperative that you understand that it is not likely that you will find a reading that covers your theme in a comprehensive way. Instead, your goal should be to find a reading that fits *within* your theme, rather than addresses its entire scope. For example, if your theme is "bioremediation using GM organisms", you might choose a reading that is limited to just microbial remediation.

One other comment: remember your audience (your classmates and the instructor). The audience is more likely to be satisfied by a reading that is more general within your theme, than one that only considers one narrow aspect of your theme. For example, choosing a paper that is focused on one microbe that is only used to remediate one environmental problem (let's say, arsenic contamination) offers a very limited view of bioremediation. The scope of your paper matters!

Your reading should follow the guidelines below. Readings that do not fit all of the guidelines will not be approved.

Guidelines:

- The reading addresses one or more applications (uses) of GMOs relevant to your theme.
- The reading has identifiable issues related to the GMO applications.
- The reading is published within the past 5 years.
- The reading is clearly peer reviewed and from professional scientific literature. As such, it should include literature citations within the text.
- The reading is NOT from any of the books on course reserve.
- The reading is NOT from the popular press.
- The reading is NOT pages from a web site. (A downloadable file from a website is acceptable, if it is clearly peer reviewed and from professional scientific literature. Many professional journals, for example, now publish journal articles electronically.)
- The reading is short, roughly 3 - 10 pages long. The reading must include enough content, though, that you will be able to generate a 30-40 minute discussion from it.

Due October 9:

- One printed copy of the proposed reading, with all pages, and neatly stapled.
- On a separate sheet of paper, a half-page, typed statement of the:
 - 1) complete literature citation
 - 2) theme represented by the paper (the theme on the preceding page)
 - 3) *objectives* of the author(s)
 - 4) most important *issues* related to the use of GMOs

Note: the issues may or may not be explicitly addressed in the reading itself.

Your proposal will be returned the following week, either approved or not approved.

Two weeks prior to your scheduled discussion:

Once your topic is approved, at least two weeks prior to your discussion, you will distribute copies to the whole class. The cheapest way to do this --- with no photocopying costs --- is to send the reading as a .pdf file by e-mail. If the reading you locate is only in print form (not an electronic file), you will need to scan the reading to create a .pdf file, or pay the costs of making stapled photocopies for every classmate.

If you use e-mail, send the file to both the instructor (obrien@rowan.edu) and the whole class (section-biol-01445-2@lists.rowan.edu). Be careful to type the addresses correctly.

Note to everyone: files distributed electronically will be sent to your Rowan e-mail account, unless you have arranged to have your e-mail forwarded to another e-mail address. See the syllabus.

For your information, the evaluation form used for your proposed reading and description is below:

Special Topics in Biological Sciences

Evaluation of Reading Proposal 40 points

Name: _____

Note: e-mails will not be accepted. Bring a hard copy of the both the proposal statement and the reading to class.

Proposal Statement (15 points) _____

- Correct literature citation included
- Identifies the theme
- Addresses the objectives of the paper
- Addresses issues related to the paper
- Concise and fits length guidelines
- Clear organization and expression
- Proofread for grammatical errors

Proposed Reading (25) _____

- Addresses and fits within the theme
- Clearly peer reviewed and from scientific literature
- About 3-10 pages long
- Published within past 5 years
- Not from the course reserve materials, popular press, or a website lacking proper authority (must be a downloadable, peer-reviewed and from scientific literature if from the web.)

Late penalty (5 points deducted per day) _____

Total: _____

Your proposed reading is: approved not approved

IMPORTANT: If your proposed reading has not been approved, a score of zero will be entered for this assignment. In this case, you have until October 23 to submit another reading.

Comments: