

Special Topics in Biological Sciences: Genetically Modified Organisms
Fall 2007
Rowan University

Class Meetings: Tuesdays 10:50 a.m. – 1:30 p.m.

Instructor: Dr. Terry O'Brien

Office: 201H Science Building

***Office Hours:** Tuesdays: 8:00 - 9:00 a.m.

Fridays: 10:45 – 11:45 a.m.

Phone: 856 256-4500 ext. 3587

****e-mail:** obrien@rowan.edu

*Note that these are times I am guaranteed to be here, not the only times I am available. Appointments are available on request (ask!).

**Please use e-mail as your last option, when the phone or office hours are unavailable. Many questions are more efficiently answered by phone or by visiting me in person.

Read this syllabus and the Schedule-at-a-Glance carefully before the second class meeting. You're responsible for all stated or implied requirements described in both. You're also accountable for understanding all Policies and Procedures described in the current Rowan University Undergraduate Catalog or Schedule of Courses.

Bring the last page of this syllabus, with your signature signed and date, to the second class meeting.

Prerequisites: Biology I - IV, or their equivalent; junior or senior status; or permission of the instructor. Majors from other disciplines may enroll with the permission of the instructor.

Scope of the Course: This seminar course is an overview of the methods used to produce Genetically Modified Organisms (GMOs) and the benefits and concerns related to their production and use. Particular attention will be given to evaluating controversies and benefits of GMOs from the past, the present, and into the future.

This is a **seminar** course. Seminar courses are different than lecture style courses, in which the instructor typically assumes the lead role in discussions. In this course, you are accountable for contributing to discussions during all class meetings. In some cases, you will assume leadership of a discussion, taking on the role of a teacher. In the first half of the course, you will assume a lead role in one panel discussion and participate in a debate. In the second half of the course, you will lead the class discussion of an approved reading of your choice.

This is also a **Writing-Intensive (WI)** course. As such, over the semester you will develop a research topic relevant to the course, research the topic, prepare a draft of a term paper, and revise the paper in accordance with recommendations. Completion of this writing project is required to receive a passing grade in the course.

Required Books:

1. Avise, John C. 2004. *The Hope, Hype and Reality of Genetic Engineering*. Oxford University Press. ISBN: 0-19-516950-6. (approximately \$33 new)
2. Pechenik, Jan A. 2006 (2007). *A Short Guide to Writing About Biology*, Sixth Edition (Paperback) Pearson Longman Publishers. ISBN: 0-321-38592-6. (approximately \$42 new)

These books are available from the Rowan University Bookstore. Please bear in mind that we will begin reading immediately; if you order the book from an online source, be certain that it will arrive promptly. Also, be careful to order the correct book and edition (use the ISBN number when searching to be certain).

Role of the Books in this Course: The books are essential for the course, but are not a mirror image of class meetings. You should not view the books as a substitute for class discussions.

Supplementary Handouts: In most cases, these will either be distributed as .pdf files in the course webpage. In other cases, only printed handouts will be provided. If you miss a class and a printed handout was distributed, a limited number of extra handouts will be in bin next to the instructor's office door.

Required e-mail Account: From the first week of the course onwards, each student is required to use either their Rowan e-mail account or a forwarding e-mail address to receive information and handouts for the course. Please note that if you wish to use an e-mail address other than your Rowan e-mail account, it is your responsibility to arrange forwarding of your e-mail to that account. Information on how to do this is available at: <http://www.rowan.edu/toolbox/email/student/>

Extra Credit: There is no extra credit available in this course. Instead, you should focus all of your effort on completing assigned tasks well and on time.

Guidelines For Success in this Course:

- Complete all readings BEFORE class meetings. Read carefully: skimming the reading before class is neither rewarding or effective.
- Get involved in every class meeting. If you find yourself reluctant to speak, try preparing a few points or questions in advance, so you're prepared.
- Attend class faithfully and on time.
- Meet all deadlines, and give yourself time to complete work.
- Turn in professional quality written work, as if you are applying for a job or promotion. For example, proofread carefully, staple neatly, and follow instructions. These sorts of details may seem insignificant, but in the real world of employment, they are difference makers.
- Understand plagiarism, falsification and other acts of dishonesty. Never do them.

- Expect to spend more time on the course outside class meetings than in them. And do spend more time on the course outside class meetings.
- Learn to use the library and the library's databases early in the course. You'll need them for locating essential resources for course assignments.
- Use all resources available to you: the library, the book, the world wide web, your classmates and the instructor, and others. Be aware that some resources are not reliable.

If You Have a Disability: If you have a documented disability that may have an impact upon your work in the class, please contact the instructor during the first week of classes. You are not required to disclose your disability to the instructor, but you must provide documentation of your disability to the Academic Success Center in order to receive University services and accommodations. The Academic Success Center can be reached at 856 256-4234, and is located in Savitz Hall. The Center staff will assist you with accommodations and meeting your learning goals. Also note that any accommodations in the course for your disability are not retroactive: no accommodations will be made until you document your disability with the Academic Success Center.

Evaluation: Everyone in this course *could* receive an A, provided that everyone is outstanding in all course aspects. On the other hand, this is unlikely. It is only fair to those who achieve the most in the course that a course grade of A is a meaningful reward. An A will be a grade reserved for students who clearly distance themselves from an average level of achievement in the course.

Course grades are determined by a point total from all of the components listed below, weighted as indicated. Neither a "scale" or "curve" is used to determine grades; instead substantial gaps in point totals of all students will be used to determine differences in final course grades. So, your course grade is assigned by comparing your score to the distribution of other scores, not from a preconceived score standard (a scale) or a preconceived grade distribution (a curve).

Meaning of Grades (as defined by the University):

- A - Excellent; Outstanding in All Course Aspects
- B - Good; Above Average but not Outstanding
- C - Fair; Average
- D - Below Average
- F – Failure; No Credit

Point Distribution:

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| Panel Discussion | 50 points (10%) |
| Panel Debate | 50 points (10%) |
| Reading Proposal and Presentation | 100 points (20%) |
| Term Paper: | 200 points (40%) |
| Class Participation: | 50 points (10%) |
| Attendance: | 50 points (10%) |

TOTAL: 500 points (100%)

Panel Discussion and Panel Debate: You will assume a lead role in one panel discussion of a chapter in the course textbook, and will serve as a panel member in a debate on the ethics of genetically modified organisms. Each panel member will be evaluated both for his or her contributions to discussion and for his or her success in working as a member of a panel. Additional instructions about the panel discussion and debate will be provided in separate handouts.

Reading Proposal and Presentation: In the last half of the course, you will contribute to the course content by choosing an approved and peer-reviewed reading for the class, and leading a discussion for a portion of a class meeting. The reading you choose will address either/both an issue or application of genetically modified organisms. Additional instructions about the assignment will be provided in separate handouts.

Term Paper: Communicating by writing is an essential part of the learning process and of many desirable jobs requiring skills in science. As a **writing intensive (WI)** course, a substantial part of your work is the completion of a term paper. During the semester, you will develop and complete a term paper on a approved topic. The project will include several components: 1) research using both the web and library resources; 2) development of an approved topic; 3) an oral presentation of your topic to the class; 4) preparation of a draft; and 5) revision of the draft according to recommendations. A series of deadlines are included in the Schedule-At-A-Glance. Additional instructions about the term paper will be provided in separate handouts.

Some Words About Deadlines: Perhaps you are accustomed to handing in assignments late and accepting a lower score for your work, or convincing the instructor that you faced circumstances beyond your control that justify no consequences at all for the work being late. Be advised that in this course, deadlines are strictly enforced. For one thing, certain types of assignments, such as panel discussions, cannot be rescheduled. In addition, most of your written work deadlines are part of a schedule for a term paper project that needs to be adhered to if you are to have success in the end. For these reasons, and because turning in assignments late is unprofessional, and potentially unfair to both the instructor and other students in the class, the penalty for late assignments is 20% of the points possible, per day late.

In exceptional cases, late assignments will not be penalized if arrangements have been made with the instructor prior to the due date for the assignment. However, the instructor reserves the right to decide whether an assignment can be reasonably made up or turned in at a later date. Be advised that in some cases, should you miss a class meeting even if for a valid reason (such as illness, family emergency, or religious event), you might not be able to make up the assignment. For more information, please refer to the Attendance Policy in the University's Undergraduate Catalog.

In summary, do not expect to receive a penalty-free extension of the deadline for most assignments.

Class Participation: This is your participation in discussions during class meetings when you are not assigned to lead the discussion or make a presentation. It is not a contest about how much you say compared to your classmates (aim for quality, not quantity). In general, class participation is any speaking by you that shows you are engaged in the course. Heads up! Class participation is not attendance: you could have perfect attendance, but receive nothing for participation. Woody Allen once said that 85% of life is just showing up on time. Woody would not do all that well in this course with this attitude, because being there (attendance) is only 10% of this course. Do not be lulled into thinking that this is “just another course with required participation”. This is a seminar course, and the expectations for participation are higher than most or all of your previous courses.

Note well: Anyone with less-than-average participation will receive no higher than a B+ in the course, regardless of written work and attendance.

Note Well: Circumstances that will prevent you from participating in classes must be discussed with the instructor during the first two weeks of classes. Circumstances that prevented you from participating throughout the course will not be considered later in the course and especially not in the final weeks of the course or after it is finished.

Points for participation will be awarded as follows:

excellent participation; contributed to class discussions frequently and in all class meetings: 50 points

above average participation; in most class meetings contributed frequently to class discussions: 35 points

average participation; contributed to class discussions occasionally and in less than all class meetings: 25 points

below average participation: contributed to discussions infrequently or not in a few class meetings: 15 points

well below average; contributed to class discussions rarely or not in several class meetings: 0 points

In summary, points for participation will range from 0 to 50 points, with average participation earning 25 points. Class participation includes questions and comments you contributed during class meetings, and is in no way attendance. Class participation is not a competition among you and your fellow students. Your points for class participation are based on your contributions compared to preset standards. It is your obligation to discuss any concerns you have about participation with the instructor during the first two weeks of the course.

Attendance Policy: The University's policy on attendance is published in the Rowan University Undergraduate Catalog, in the section on Academic Policies and Procedures. You are accountable for reading and understanding this policy, which will be used in this course.

As noted in the Undergraduate Catalog, "students are expected to be present at each scheduled class". What is implied in this is that absences may occur for justifiable reasons, but they should be rare and only when truly unavoidable. Would you regard an instructor highly if he showed up for class only 80% of the time? Surely not. I have the same attendance expectations of you that you have of me.

Both attending class and arriving on time are part of attendance. As a rule of thumb, always contact the instructor at the **earliest opportunity** to discuss the possibility (or not) of making up any missed assignments. In general, earliest opportunity means before the class missed, not after. You will quickly lose the benefit of the doubt (see below) if you have a pattern of missing or arriving late for classes.

I have a "no questions asked, no explanation needed" policy for attendance. This means that I do not ask you why you are late or absent for class, and that you do not need to offer me an explanation. It is likely that at some point in the semester you will face illness, a family emergency, or some other event that will justifiably keep you from attending class or attending class on time. Therefore, you are allowed up to one absence or late arrival for any reason. Above the limit of one, you will receive fewer than the points possible in the course for attendance, regardless of the reason(s).

Points for attendance will be awarded as follows:

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| 0-1 absences or late arrivals: | 50 points |
| 2-3 absences or late arrivals: | 35 points |
| 4-5 absences or late arrivals: | 20 points |
| 6 or more absences or late arrivals: | 0 points |

In summary, if you attend class on time about 95% of class meetings, you earn 70 points. If you attend class on time less than about 60% of class meetings, you earn 0 points. A late arrival is counted the same as an absence.

Note well:

- Attendance will be observed each class period. Each late arrival (tardiness) will also be observed.
- To be fair to those that always attend the class meetings on time, your second absence or late arrival may affect your course grade, regardless of the reason (even if it is a "good" reason).
- No absences or late arrivals are uncounted, however, the system of scoring takes into account that you may have as many as one absence or late arrival for legitimate reasons, whether for illness, family emergency, or otherwise.

- If you are absent a day you are assigned to lead a discussion or make a presentation, you likely will not be able to make up the assignment. The instructor reserves the right to decide whether an assignment can be made up at a later date, and is not obligated to alter the schedule of the course, nor make special arrangements to permit you to makeup work.
- Upon request, your attendance record is available from the instructor at any time during the semester.
- **Ongoing circumstances that will prevent you from attending classes or arriving on time should be discussed with the instructor during the first two weeks of classes, or at the earliest opportunity. Such circumstances are not justification for absences or late arrivals if you fail to discuss them with the instructor at the earliest opportunity.**

Benefit of the Doubt: Everyone begins the course with the benefit of the doubt. You don't have to earn it; it is something you have by default. You can only lose the benefit of the doubt by your lack of class participation, class absences or tardiness, or a decline in performance as the semester goes on. Fortunately, you have some control over all of these. How does the benefit of the doubt affect your grade? If there is a question of two grades you might receive for the course, you would be given the higher of two grades unless you have lost the benefit of the doubt. The less you participate in class and the less you attend class, the more your benefit of the doubt will evaporate into nothingness.

Academic Honesty: Few of you need to be told any of this because most of you are honest. But for those few who are unclear about the nature of academic dishonesty or tempted by it, please read carefully:

The University's policies on academic honesty, as written in the Student Information Guide and the Schedule of Courses, will be followed in this course. Please read these excerpts from the Guide carefully:

"Academic dishonesty, in any form, will not be tolerated. Students who commit an act of academic dishonesty may be subject to an F in the course, suspension from the University, or both."

"Students are responsible for upholding University Academic Honesty standards, understanding what constitutes acts of academic dishonesty, understanding academic honesty procedures, and understanding what penalties can be imposed for acts of academic dishonesty."

Plagiarism and falsification are two examples of serious forms of academic dishonesty that could occur in this course. Plagiarism occurs when a student intentionally and knowingly represents the words or ideas of another as her or his own. Falsification occurs when a student intentionally fabricates or invents information or citations. **The penalty for plagiarism or falsification is an F for the course or a 0 (no credit) for the term paper assignment, at the sole discretion of the instructor.**

All drafts of term papers and revised term papers will be carefully evaluated for falsification and plagiarism. Should you have any concerns or questions about academic dishonesty, you should discuss them with the instructor.

Acknowledgment of Course Participant**Special Topics in Biological Sciences: Genetically Modified Organisms****Fall 2007****Rowan University**

I have carefully read the entire syllabus for this course, and understand that all policies or guidelines described within it apply to me. I acknowledge that the instructor directed me to carefully read the syllabus on the first day of class. I also acknowledge that I have an obligation to promptly discuss with the instructor any questions or concerns I have about the syllabus.

Your name (print)

Your signature

Date