BSc 530W – Advanced Virology
Syllabus (Summer I, 2015)

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University Statements
Academic integrity: As members of Texas A&M University-Commerce academic community, we all are responsible to underpin the principles of academic integrity expressed by this community. We are expected to watch these principles to be kept and appreciated by others.
   • The first instance of cheating will result in an automatic Zero on the exam. A second instance will result in Zero course grade (automatic F).
   • Plagiarism is a serious academic criminal activity. You must cite all sources of information with properly accredited. Copying material, whether parts or whole, will result in Zero for your term paper and can incur further University disciplinary consequences.

Accommodations: The American with Disability Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other aspects, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have disability requiring accommodation, please contact:
   Office of Student Disability Resources or Services
   Texas A&M University-Commerce
   Gee Library, Room 132
   Tel) 903-886-5150, 903-886-5835
   Fax) 903-468-8148
   Email) StudentDisabilityService@tamu-commerce.edu

Access to student work: Copies or your work in this course including copies of any submitted papers and your portfolios may be kept on file storage for institutional research, assessment, and accreditation purposes. All work used for these purposes will remain anonymous.
Course Description
BSc 530, Virology, is a course for Biological and Environmental Sciences graduate students designed to provide in-depth understanding of the significance of viruses to biology, the origin of life, and our current world. Viruses are the most numerous and the most ubiquitous form of life, although whether viruses are life or not is still an open debate. They are virtually everywhere and they are in tight relationship with other forms of life on earth. Topics covered in this course will include introduction to viruses, eukaryotic molecular biology, and host cell constraints, viral replication cycles, virus classification, architecture and nomenclature, viral diseases, how viruses enter and spread in the human body, host resistance to viruses, viral disease epidemiology, viruses and cancer, and prions.

Prerequisite:
BSc 306, Applied Microbiology or equivalents

Textbook:
Virology – Principles and Applications


Although above textbook will be the main source of my lecture, I often use other sources to provide better information.

Student Learning Outcomes
Upon completion of this course, you should be able to;

• Describe the structure and function of viruses
• Distinguish diverse characteristics of viruses – host range, target tissues, replication strategy, transmission, etc.
• Develop an awareness of the impact of viruses on other forms of life
• Describe the role of viruses in human diseases

On-line Class Policy
This is a “web-based” course - you don't actually attend lecture classes. Instead, all class activities will be held in eCollege enters through MyLeo page. Check the website frequently (daily!!!) for announcements, instructions, and discussions. Try navigating the site early so you know that you can access everything. If you have difficulties with any material, talk to me immediately.

It is VERY important to keep in mind that this is a Summer course that we are packing the same material that would be covered in 15 weeks of a regular term semester into a 4-week period. Therefore, it is VERY important to keep up with the material (if you fall behind, there isn’t much time to catch up!!!)

• For successful course completion, your participation is essential. Your attendance grade will be determined by your timely login to the
course shell (minimum once a day).
- Students should check lecture material, assignments, and tests on regular basis. Yes, this course is mainly self-paced. However, it is strongly recommended that you schedule your specific work time that works best for you. Don’t forget that the websites is active 24/7 during Summer I (June 8 – July, 9)
- The material for this class will be organized around content blocks. Students are expected to read the assigned textbook material and lecture notes and comply with given due dates for the assignments
- Exams access will be available only during the pre-announced period of time. After this given period, you will not be able to have an access to that exam.

**Technology Requirements**

This course is web-based, and will therefore be administered via eCollege (see “ACCESS AND NAVIGATION). All course announcements, which mainly include news about assignments, are posted through eCollege (usually at the course home). Lecture materials will be uploaded to the Doc Sharing. Once assignments are announced, you will be uploading your assignments to the Dropbox. As grades are updated, I update the Gradebook. Thus, the four major components used in eCollege are Announcements, Doc Sharing, Dropbox, and Gradebook.

The following information has been provided to assist you in preparing to use technology successfully in this course.
- Internet access/connection – high speed recommended (not dial-up)
- Word Processor (Microsoft Word) and Slide Program (Microsoft PowerPoint)

Our campus is optimized to work in a Microsoft Windows environment. This means our courses work best if you are using a Windows operating system (XP or newer) and a recent version of Microsoft Internet Explorer (6.0, 7.0, 8.0, or 9.0). Your courses will also work with Macintosh OS X and most Linux distributions. To launch a browser test within any operating system, login in to eCollege, click on the „myCourses“ tab, and then select the “Browser Test” link under Support Services.

**Access and Navigation**

**eCollege Access and Log in Information**

This course will be facilitated using eCollege, the Learning Management System used by Texas A&M University-Commerce. To get started with the course, go to: https://leo.tamu-commerce.edu/login.aspx.
You will need your CWID and password to log in to the course. If you do not know your CWID or have forgotten your password, contact Technology Services at 903.468.6000 or helpdesk@tamu-commerce.edu.

**Getting Started**

Be sure to explore the class site at eCollege. Use the first couple of days to become familiar with the class site. Remember that this is a GRADUATE level
course, and therefore you will be expected to show appropriate levels of effort. You will be expected to take part in discussions in a mature and in-depth manner, to write in a clear and professional voice and you should not need excessive amount of instructor's hand-holding.

**Grading Policy**

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term paper (see details on next page)</td>
<td>150</td>
</tr>
<tr>
<td>(50 pts. Topic selection &amp; white paper + 100 pts. Term paper)</td>
<td></td>
</tr>
<tr>
<td>5 quizzes</td>
<td>50</td>
</tr>
<tr>
<td>4 lecture exams (100 pts. each)</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>600 points</strong></td>
</tr>
</tbody>
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**Grading Scale**

- 90 – 100% = A
- 80 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- 59% and below = F

**Teaching Methodology**

**Web-based Course** This course is partially self-paced. Therefore, it is VERY important to keep up with the material (if you fall behind, there isn’t much time to catch up!!!). Students are strongly encouraged to print lecture slides and use them as study guide. Periodically check (daily!!) course homepage as well as your email for course announcements.

**Term paper** Write a review paper on one of the current research topics related to virology. Topic selection and white paper is due by June 22, and the paper is due by July 1. Both white paper and term paper need to be prepared in MS word (.doc or .docx) and uploaded to the corresponding "dropbox". Misplaced assignments will not be graded.

- **Contents of the paper:** Discuss a focused “hot topic”, with sufficient discussion of background information to allow anyone taking the class to understand the significance. Research approaches and future directions should also be briefly discussed. The length of the paper is minimum 8 pages of double spaced text (font size no bigger than 12). You can provide figures. Write with your classmates as the targeted readers. You should not “reuse” a topic used for other courses.

- **Sources and their use:** In recent years there has been a tendency to rely more heavily on web pages as sources. Students are warned that plagiarizing any source is a serious violation of academic standards—credit and use your sources properly. A definition of plagiarism can be found in the section of University Statement. **Note:** I allow the use of figures downloaded from the web, but you should cite the reference or give the website. Figure legends should be your own with succinct and clear information.

- **Style:** Papers will be judged on their organization and the clarity of writing. Papers that have numerous misspellings or grammatical errors will be rated poorly and this
rating will seriously impact the grade. Proofread carefully. Use spelling checkers. Have others read the paper both for clarity and content. The paper should follow a review paper writing style with citation systems of either Citation-Sequence or Name-Year.

- **White paper:** You have to provide a **1-page white paper** of your term paper outline along with minimum 3 references (full-text scientific research papers in PDF format) covering your term paper topic (**Due: Monday, June 22**).

**Exams** There will be 4 exams. Exams are “take-home” style and are accessible for the duration of 1hr at a given date (**unless otherwise announced, the exam date will be Friday of each week**). The exams will consist of multiple choices, short answer questions, and assay-type questions. Assay-type questions will ask bigger picture of class lecture topics.

**Makeup** Since there are no actual class meetings or sit-down exam periods, there isn’t any necessity for “make-up”. All work will have a due date posted. Assignments may be accepted late, but will be penalized heavily on an increasing scale (the later it is, the more point it loses). Please contact me immediately if you are “absent/inactive” long enough to miss any due dates. However, I STRONGLY RECOMMEND planning ahead to avoid such problems. Extreme circumstances will always be taken into consideration; talk to me before you assume anything.

**Class Schedule**

Week 1
- Introduction
- Pre-test
- Lectures 1-2
- Topic selection & White paper due (11:59 PM, June 22)
- Exam I

Week 2
- Lectures 3-5
- Exam II

Week 3
- Lectures 6-7
- Exam III

Week 4
- Lectures 8-9
- Exam IV

Week 5
- Post-test
- Term paper due (11:59 PM, July 6)

*All dates and assignments are tentative and subject to change.*