

BSC 1010C – General Biology I – Fall 2024



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URL: <http://frontdoor.valenciacollege.edu/>

Class Website: As this is an onsite/web-assisted course, all of your course materials are accessible through Canvas at <https://online.valenciacollege.edu/login/canvas>
If this is your first time taking web-assisted course go to: <http://valenciacollege.edu/oit/learning-technology-services/student-resources/getting-started-online/> to help you logon and familiarize you with the system.

Meeting Times: We meet onsite Mondays (for Class), 1:00 PM – 3:45 PM. Room 209. We also meet onsite Wednesdays (for Laboratory), 1:00 PM – 3:45 PM. Room 321. Campus: West. Building: Allied Health Sciences (AHS).

Course Description: Welcome to the BSC1010C General Biology I course! This course is intended to be an introduction to fundamental biological principles emphasizing common attributes of all living organisms. Unifying concepts include the chemical structure of living matter, structure and function of the cell, cell types, major metabolic functions, control systems, reproduction, genetics, evolution, and ecology.

Prerequisite: Satisfactory completion of all mandated courses in reading, mathematics, English, and English for Academic Purposes. This course is a prerequisite for advanced biology courses. Students should be prepared to complete college-level reading, writing, and mathematics assignments as part of this course. This course meets one of the General Education science requirements for graduation. (Special Fee \$59.00)

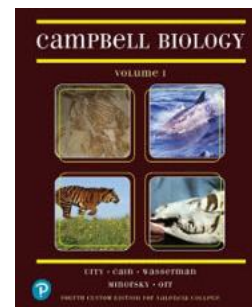
Learning Objectives:

By the end of the course you will be able to:

1. Students will apply scientific reasoning to solve problems.
2. Students will explain Darwinian evolution.
3. Students will describe the chemical basis of life.
4. Students will describe cellular structures and functions.
5. Students will examine the structures and functions of cell membranes.
6. Students will explain the processes of energy transformation as they relate to cellular metabolism.
7. Students will evaluate the effects of cellular reproduction.
8. Students will examine eukaryotic inheritance.
9. Students will describe the molecular mechanism of gene expression and DNA replication.
10. Students will apply the scientific method to biological investigations.

Text: You're required to obtain an eText or hardcopy version of:

1. Campbell's Biology, 4th Custom Edition for Valencia College, Volume 1 with MasteringBiology. (2021) Taken from Campbell's Biology, 12th edition. Pearson Learning Solutions. (includes MasteringBiology Access Code in package). ISBN: 9780137351824 / 9780137351916 \$64.83



For the labs for this course, you will need the hardcopy version of:

2. BSC 1010C General Biology I Laboratory Manual, 7th edition (2023). Lindbeck, Saad, and Matthews. Hayden-McNeil. ISBN: 9781533945884. \$14.00



Expectations

Teacher Expectations

I believe that anyone can succeed in the class if the right learning environment and strategies are used. I have structured this course to provide a variety of learning assessments with diverse learners in mind. I value your uniqueness and experience and want you to value your classmates as well. We are all learning together so please reach out to me if you have any questions or need extra assistance. I am here to help you learn. ☺

- I will follow the course outline as closely as possible and will notify you of modifications in the outline if they happen.
- I will attempt to create and maintain an atmosphere in which you feel free to both read others' views and express your own views and ask questions to increase your learning.
- Please tell me or email me about anything which you are unclear. I tend to respond quickly, and I want to be supportive of your learning and growth.

Student Expectations

Set goals for yourself for this course and plan/work to meet them. Meet all course deadlines and you will receive feedback within a week on the submitted assignment. Value your classmate's opinions and be open to learn new ways of thinking. Complete all assignments, quizzes, and exams without sharing/copying other's work or answers and be proud of your work.

- Please inform me onsite or through e-mail if you will be unable to complete work.
- You are expected to arrive on time to onsite class meetings.
- You are expected to complete assignments thoroughly and on time and contribute to class discussions.
- You are expected to check your Atlas email and Canvas inbox on a regular basis throughout the week.
- You can expect to devote about **20 hours** each week to this course. I recommend scheduling a couple of days a week working on the assignments. Start them early so you can ask questions.
- Feel free to share feedback regarding how well the class is meeting your needs or if material is unclear. I make changes to the class based on feedback.
- It is also expected that you will treat classmates onsite and online with respect and observe the rules of netiquette and confidentiality regarding personal information shared in class.

Tentative Course Schedule*: All exam and assignment due dates are also found in Canvas

Course Schedule		
<u>Week</u>	<u>Topic & Assignments</u>	<u>Due Dates</u>
1 Aug 19-25	<ul style="list-style-type: none"> • Orientation Module: Orientation Quiz, Be in the Know Assignment • Introduction Discussion – Let’s Break Ice! and 2 replies • Register into MasteringBiology and acquire materials • Take the Honorlock survey • Laboratories: Safety Briefing, Calculations/Concentrations 	Sun, Aug 25
2 Aug 26-Sept 1	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 1 - Evolution, the Themes of Biology, and Scientific Inquiry and Chapter 2 - The Chemical Context of Life • MasteringBiology Activities: Ch. 1 Intro to Biology & Ch. 2 Chemistry • Discussion: Scientific Method, Evolution, and Religion • Authentic Assessment: Scientific Research Article Analysis • Laboratories: Lab 1 The Scientific Method 	Sun, Sept 1
3 Sept 2-Sept 8	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 3 - Water and Life • MasteringBiology Activities: Ch 3 Water • Discussion: Everyday Chemistry • Authentic Assessment: Element • Laboratories: Lab 2 Atoms & Molecules 	Sun, Sept 8
4 Sept 9-Sept 15	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 4 - Carbon and the Molecular Diversity of Life • MasteringBiology Activities: Ch 4 Carbon • Discussion: None • Authentic Assessment: None • Laboratories: Lab 3 Use of the Microscope • Assessment: Exam 1 (Chapters 1-4) 	Sun, Sept 15
5 Sept 16-Sept 22	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 5 - The Structure and Function of Large Biological Molecules and Chapter 6 - A Tour of the Cell • MasteringBiology Activities: Ch 5 Macromolecules and Ch 6 The Cell • Discussion: Diet and Nutrition • Authentic Assessment: Cell Types • Laboratories: Lab 4 The Cell 	Sun, Sept 22
6 Sept 23-Sept 29	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 7 - Membrane Structure and Function • MasteringBiology Activities: Ch 7 Cell Diffusion • Discussion: Bacterial Cells and Antibiotics • Authentic Assessments: None • Laboratories: Lab 5 Diffusion I • Assessment: Exam 2 (Chapters 5-7) 	Sun, Sept 29

Course Schedule		
<u>Week</u>	<u>Topic & Assignments</u>	<u>Due Dates</u>
7 Sept 30-Oct 6	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 8 - An Introduction to Metabolism and Chapter 9 - Cellular Respiration and Fermentation • Discussion: What We Think We Know About Metabolism May Be Wrong • Authentic Assessment: None • MasteringBiology Activities: Ch 8 Metabolism and Ch 9 Cell Respiration • Laboratories: Lab 6 Diffusion II 	Sun, Oct 6
8 Oct 7-Oct 13	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 10 – Photosynthesis • MasteringBiology Activities: Ch 10 Photosynthesis • Discussion: None • Authentic Assessment: None • Laboratories: Midterm Lab Practical • Assessment: Exam 3 (Chapters 8-10) 	Sun, Oct 13
9 Oct 14-Oct 20	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 12 - The Cell Cycle and Chapter 13 - Meiosis and Sexual Life Cycles • MasteringBiology Activities: Ch 12 Mitosis and Ch 13 Meiosis • Discussions: Cancer Treatment VS Prevention • Authentic Assessment: Who was Henrietta Lacks? • Laboratories: Lab 7 Enzymes 	Sun, Oct 20
10 Oct 21-Oct 27	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 14 - Mendel and the Gene Idea • MasteringBiology Activities: Ch 14 Mendel Genetics • Discussion: ABO Blood Group • Authentic Assessment: Investigating Genetic Ancestry Tests • Laboratories: Lab 8 Cellular Respiration • Assessment: Exam 4 (Chapters 12-14) 	Sun, Oct 27
11 Oct 28-Nov 3	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 15 - The Chromosomal Basis of Inheritance • MasteringBiology Activities: Ch 15 The Chromosomal Basis of Inheritance • Discussion: Telomeres and Aging • Authentic Assessment: None • Laboratories: Lab 9 Photosynthesis 	Sun, Nov 3
12 Nov 4-Nov 10	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 16 - The Molecular Basis of Inheritance • MasteringBiology Activities: Ch 16 The Molecular Basis of Inheritance • Discussion: GMOs and Genetically Modified Embryos • Authentic Assessment: None • Laboratories: Lab 10 Mitosis & Meiosis 	Sun, Nov 10

Course Schedule

<u>Week</u>	<u>Topic & Assignments</u>	<u>Due Dates</u>
13 Nov 11-Nov 17	<ul style="list-style-type: none"> • Readings/Summaries: Chapter 17 - Gene Expression: From Gene to Protein • MasteringBiology Activities: Ch 17 Gene Expression: From Gene to Protein and Final Exam Review • Discussion: A Cure for Cancer • Authentic Assessment: Central Dogma and Genetic Medicine • Laboratories: Mendelian Genetics & Human Phenotypes 	Sun, Nov 17
14 Nov 18-Nov 24	<ul style="list-style-type: none"> • Laboratories: Final Lab Practical • Final Exam Review • Comprehensive Final Exam (Chapters 1-10 and 12-17) 	Sun, Nov 24
15 Nov 25-Dec 1	<ul style="list-style-type: none"> • Metacognition assignment • Thanksgiving Break (no labs) 	Tue, Nov 24
16 Dec 2-Dec 4	<ul style="list-style-type: none"> • Recap assignment • Late submission of Final Exam and assignments 	Wed, Dec 4

*The dates of these topics serve as a guideline and are subject to change.

Other important dates:

- Aug 26 (@ 11:59pm) – Drop/Refund Deadline
- Sept 2 – Labor Day (college closed)
- Oct 23 through Nov 7 – Student Feedback on Instruction Period
- Oct 25 (@ 11:59pm) – Student Initiated Withdrawal Deadline
- Nov 11 – Veteran’s Day (no class)
- Nov 27-Dec 1 – Thanksgiving Break (college closed)
- Dec 8 – Term ends
- Dec 9 – Final grades viewable in ATLAS

Assessment Method and Evaluation Scale

Authentic Assessments: An authentic assignment is one that requires application of what you have learned to a new situation, and demands judgment to determine what information and skills are relevant and how they should be used. Individual authentic assessments will be assigned to demonstrate an understanding of the material. The products may include developing PowerPoints, videos, infographics, papers, etc. A rubric will be provided for grading the assignment.

Summaries/Classroom Activities: To increase participation in the learning process, students will prepare a hand-written, chapter summary before covering each of the chapters in class. The summaries are due at the beginning of class. Chapter summaries should include/answer all the Common Learning Outcomes for the particular chapter. You can find a copy of the Common Learning Outcomes for all chapters within the Orientation Module in Canvas. You may do these summaries in whatever form you wish and there is no minimum or maximum length. However, it is intended that these summaries should be a genuine attempt to summarize each chapter, must be your own work, and must be neatly hand-written. Additional classroom activities may be conducted and graded such as active learning activities, discussions, and/or authentic assessment rough drafts.

Laboratories: The labs will provide an opportunity for students to apply the scientific method to biological investigations. As there will be a short quiz at the beginning of each lab session, students must be on time. Students arriving late will not be able to take the quiz. Lab findings and results will be recorded within a lab manual and are to be turned in as a report at the beginning of the next lab session. At the beginning/end of the laboratory session you must sign-in/out on the sign-in/out sheet and enter the time you leave the laboratory.

Lecture and Final Exams: As understanding checkpoints, the 4 (50 question) multiple choice lecture and 1 (100 question) final exams will serve as an assessment of your biology knowledge. The college has adopted the Honorlock application as the remote proctoring application for online examinations. This is an extension for the Chrome browser and is required to access the exams in Canvas, along with a webcam and microphone. Students must use a computer with reliable internet access because excuses or failure to complete assessments due to computer error will not be permitted.

MasteringBiology Activities: There are associated studies and activities associated with the book. You will have links that will direct you to the activities in Canvas. You will have multiple chances to increase your score.

Discussions: Since Biology often includes interesting topics and associated emerging technology, weekly online discussions will be included in the course. Online discussions will be open for two weeks following the chapter covered. The student must make an initial response (3 pts) then respond to at least two other students (2 pts). Discussion postings should be:

- Substantial – Thoughtful, original, relevant and contributes to the overall learning of the group.
- Thought-provoking – Stimulates thinking and reasoning.
- Timely – Post early to give your peers time to respond, this contributes to a rich discussion.
- Logical, concise, and grammatical.
- Convey “your presence” – Reinforce your conclusions with real life experiences.

Extra Credit: Students have the opportunity to earn extra credit by completing the Student Feedback at the end of the semester.

Late Work/Makeup Policy

There is a two-week grace period after most online assignments are due before they close permanently. The late penalty on assignments is 5% per day (up to 50%). If you cannot complete the work due to a documented absence, contact me immediately. **Late work after the grace period will not be accepted!**

Grading Scale

A = 89.5% - 100%, B = 79.5% - 89.49%, C = 69.5% - 79.49%, D = 59.5% - 69.49%, F = below 59.49%

1. Authentic Assessments – 10%
2. Summaries/Classroom Activities – 20%
3. Laboratories – 20%
4. Exams – 30%
5. MasteringBiology Activities – 10%
6. Discussions – 10%

College & Course Policies

No Show Policy

If you do not attend class during the first week you will be withdrawn from the class as a "no show". Class attendance is required for onsite/mixed-mode classes; students who are not actively participating in an onsite/mixed-mode class must be withdrawn by the instructor at the end of the first week as a "no show". If you are withdrawn as a "no show," you will be financially responsible for the class and a final grade of "WN" will appear on your transcript for the course.

Attendance Policy

The College believes that regular attendance and class participation are significant factors which promote success in college. Students are expected to attend all onsite meetings unless unavoidable emergencies prevent attendance. Valid documented absences will be dealt with on a case-by-case basis and may be categorized as excused. You must contact your Professor within 48 hours of absence & submit valid documentation within one week. Excuses from parents (or other family members) are NOT accepted...even if your family member is a doctor, dentist, etc. Failure to submit documentation = unexcused absence. Excused absences will not affect your grade. Unexcused absences do affect your grade however. By missing an unexcused onsite meeting, you will lose all points associated with the missed class. Roll will be taken at the beginning of every class. Students arriving more than five (5) minutes late will be recorded as being absent from class unless they notify the instructor of their presence in class at the end of the period.

As this is web-assisted course, material is available 24/7 online, managed through Canvas. You must have access to the Internet (available via loaned laptops on all Valencia campuses) to complete the course requirements. Your online attendance will be checked based on your participation in the Canvas course and submission of coursework.

Withdrawal

The deadline for Drop/Refund is **August 26** and for Withdrawal is **October 25**. Per Valencia policy a student who withdraws from class before the established deadline for a particular term will receive a grade of "W". A student is not permitted to withdraw after the withdrawal deadline.

A faculty member cannot withdraw a student, so it is up to the student to complete a student-initiated withdrawal up to the withdrawal deadline. A student-initiated withdrawal will receive a grade of "W". After the withdrawal deadline, students cannot withdraw themselves and the student will receive the grade earned at the end of the course. Any student who withdraws from a class during a third or subsequent attempt in the same course will be assigned a grade of "F." If you do not intend to complete the course, you must withdraw yourself prior to the withdrawal date.

Academic Honesty

All forms of academic dishonesty are prohibited at Valencia College. Academic dishonesty includes, but is not limited to, acts or attempted acts of plagiarism, cheating, furnishing false information, forgery, alteration or misuse of documents, misconduct during a testing situation, facilitating academic dishonesty, and misuse of identification with intent to defraud or deceive.

All work submitted by students is expected to be the result of the students' individual thoughts, research, and self-expression. Whenever a student uses ideas, wording, or organization from another source, the source shall be appropriately acknowledged. If a student is caught submitting plagiarized work, a first offense will result in a zero score on the assignment, a second offense will result a class grade of F.

College Student Conduct Policy

Valencia is dedicated not only to the advancement of knowledge and learning but also to the development of responsible personal and social conduct. As a registered student, you assume the responsibility for conducting yourself in a manner that contributes positively to Valencia's learning community and that does not impair, interfere with, or obstruct the orderly conduct, processes, and functions of the college as described in the Student Code of Conduct.

Behavior/Netiquette

It is important to be aware of your behavior in an onsite and online learning environment to ensure positive interactions with your instructor and peers. This requires you to follow some guidelines for behaviors.

All students are expected to:

- Show respect for the instructor and for other students in the course
- Respect the privacy of other students
- Express differences of opinion in a polite and rational way
- Maintain an environment of constructive criticism when commenting on the work of other students
- Remain focused on the learning topics during discussions and activities

Third Party Software & FERPA Policy

Valencia College has a firm commitment to protecting the privacy rights of its students. Under no circumstances will your test scores, total points, or final grades be discussed on the telephone or over email. FERPA rights to privacy prevent the divulging of scores or related materials by these means. Scores will only be given face-to-face with each student or by accessing your ATLAS account.

Communication

You may contact me in various ways during this semester.

- Besides in person, you may contact me through the Canvas Inbox. This is probably the best and quickest method of online communication. I will respond to your message within 48 hours, often much sooner, with the exception of days and times when the college is closed.
- You may email me at jcastro22@valenciacollege.edu. In your messages (if not using the Canvas Inbox), please indicate your course number so that I may better assist you.

Digital Device Requirements

You should verify computer software and hardware requirements to ensure course work can be submitted successfully. Since all assignments are submitted online, access to a digital device is required for this course.

Canvas list minimum computer specifications and supported browsers to ensure compatibility. The Chrome browser is recommended. You are also encouraged to install the Canvas app on their Android phone or iPhone in order to receive mobile notifications and to access your courses via your mobile device.

Notifications

Make sure that you turn on your Push Notifications and click on the "checkmark" for Announcements and Submission Comments to ensure that you receive those immediately. It only needs to be changed on one device. Add a profile pic to Canvas for a personal touch.

Student Support Services

Tutoring Center

Ask for help if you need it! Do not wait until the end of the semester to ask for help. The sooner you ask, the more beneficial it will be. The West Campus Tutoring Center (WCTC) offers free Biology tutoring assistance for current Valencia College and UCF students, plus a variety of services and materials for student success. In the past, Biology students have benefited tremendously from taking advantage of this service – even increasing their exam grades by 2 letter grades! Students can call 407-582-1633 or visit the WCTC (West Campus, Building 7, Room 240) to inquire about setting up a tutoring session with an onsite Biology tutor.

The college also offers online tutoring for Biology as well. To get started using online tutoring, visit www.valenciacollege.edu/tutoring. Through this site, you can view the schedule of tutors/tech support assistants, find available times, learn more about the services, and access a collection of supplemental resources that are available 24/7.

General Hours for Live Tutoring:

- Monday-Friday: 12-9pm
- Saturday & Sunday: 12-7pm

Here is a link to the online Science Tutoring webpage to connect to a Biology tutor:

<https://libguides.valenciacollege.edu/onlinetutoring/sciences>

Online Learning Technology Support services are also available. Students can receive assistance with navigating: Canvas, OneDrive, Zoom, YouTube, and Microsoft Office (Word, Excel, & PowerPoint). Support is also provided for video editing (via iMovie and MovieMaker) and converting documents from a Mac to PC. Tech support is available live (on-demand) via Zoom, by appointment, or via email. Students are encouraged to use the 24/7 Canvas Help located inside Canvas by clicking on the “Help” icon.

LifeMap

Valencia College is dedicated to helping students define and meet their life, career and education goals. LifeMap is Valencia’s name for the system of services, programs and interventions designed to help students achieve these goals. To access this resource, log into Atlas, and click on the “LifeMap” tab.

Student Assistance Program

Valencia College has contracted with a private and confidential counseling service (Bay Care Behavioral Health Student Assistance Program (SAP)) to provide FREE short-term assistance to students who need to resolve problems that are affecting their college performance. Examples might include stress, relationship/family issues, alcohol/drug problems, eating disorders, depression, and gender issues. If you are experiencing any of these issues, call 1-800-878-5470 to speak to a professional counselor. For more information, log into Atlas, click on the “Students” tab, and click on “BayCare Health System,” located under “Health and Wellness.”

Students Requiring Academic Accommodations

Students with disabilities who qualify for academic accommodations must provide a letter from the Office for Students with Disabilities (OSD) and discuss specific needs with me, preferably during the first two weeks of the semester. The OSD (Downtown Campus, Union West, Room 201, 407-582-3630) determines accommodations based on appropriate documentation of disabilities.

Title IX

Valencia College strives to be a place free from all forms of discrimination. Title IX protects students from discrimination based upon sex including protections against sexual violence, domestic violence, and stalking. This also includes protections for students who are pregnant or may become pregnant. If you experience sexual violence, domestic violence or stalking and would like assistance there are several options available to you. Valencia partners with the Victim Service Center of Central Florida which is a confidential resource available 24/7. They can be reached by calling 407-497-6701. If you would like assistance on campus, you can go to the website or contact Valencia College's Title IX and Equal Opportunity Officer, Ryan Kane, by emailing rkane8@valenciacollege.edu. If you would like to report to law enforcement, you may visit Campus Security or call 911.

Please note that there are no confidential resources on campus. As your professor, I am required to report any information mentioned in this statement to the appropriate campus resources. This will include your name and detailed information shared with me. We take privacy very seriously at the College and only those who have a legitimate need to know the information will be provided with this information.

Copyright

To avoid copyright infringement, any materials produced specifically for this class can ONLY be used during this term for this class.

Disclaimer

Changes in the syllabus, schedule, evaluation procedures, and/or homework assignments may be made at any time at the discretion of the professor. If you are absent, it is your responsibility to find out what, if any, announcements or changes have been made.

Guidelines for Effective Study and Exam Preparation

The most common barrier to success encountered by college students is a lack of effective techniques for study and exam preparation. If you are one of the vast majority of students whose answer to the question, "How do you study for your tests?" is, "I go over my notes," or "I read the textbook", then you need to take a serious look at your study skills. Here are some suggestions to increase your effectiveness as a student.

I. Day to Day

A. Take good notes. Very few students leave high school with this skill. The Student Success class can help you learn how to do this. Here are some suggestions and observations.

1. Always take the notes for a particular class in the same notebook. Spiral bound notebooks were invented because they solved the problem of keeping related information consolidated in one place. Take advantage of this.
2. Date each entry into your notebook.
3. It is usually best to keep the notes for different classes separate from each other. Spiral notebooks with built in dividers are excellent for this purpose.
4. Your notes should contain as complete a record of what the instructor said as possible. Of course, you should not try to write every word spoken, but don't leave out ideas. When you study, your notes should call back to your mind the entire sequence of ideas presented. Take care to spell all new words carefully.
5. Anything the instructor writes on the board should appear in your notes. If the instructor took the time to write it out, he or she considers it important. You should do the same.
6. If possible, try to take your notes in some kind of outline form. The organization of ideas is as important as the content of those ideas, especially when it comes to learning the material for an exam.
7. You might find it useful to have a second color of pen or pencil available for highlighting important ideas or indicating vocabulary.

B. Be involved in your classes. Don't simply pretend you are a sponge, ready to soak up whatever the instructor says. You are there to learn, not to be taught.

1. If the instructor is moving too rapidly for you, or if you don't understand what is being said, say something!
2. Ask questions if you are confused. Confusion is definitely your worst enemy.
3. If your class includes group activities, participate as fully as you can. Such exercises are done for your benefit, not to provide a break for the instructor.

C. Review your notes every day. This suggestion is one that we have all heard a thousand times. Unfortunately, most of us never really believe it until we actually try it. Spend 30 minutes or so each evening going over the notes from each class. There are at least two tremendous benefits to be gained from this discipline.

1. Research has shown that reviewing new material within 24 hours of hearing it increases your retention of that material by about 60%. This means that you will be 60% ahead of the game the next time you walk into class. If you want to significantly reduce the time necessary to prepare for exams, this is the way to do it.
2. Reviewing material before the next class period enables you to identify points of confusion or omission in your notes, which prepares you to ask the questions you need to ask before the next lecture. Again, confusion is your worst enemy.

D. It is excellent policy to give high priority to new vocabulary. Language is the most fundamental tool of any subject, and it can seriously handicap you to fall behind in this.

E. Keep up on your reading. Unlike most high school teachers, many college instructors don't give specific reading assignments. You are expected to go to your text for the reading related to the materials covered in class. Be independent enough to do this without being told.

II. Using Your Textbook

A. Don't expect your instructor to give you detailed, page by page textbook assignments. While some may do so, many do not. College teachers are much more likely to expect you to use your own initiative in making use of the text.

B. In most cases, it will be most useful for you to at least skim the relevant chapters before each lecture. You should receive a course outline/syllabus at the beginning of the semester, which will tell you the subject for each day. You may receive chapter references (or even page references), or you instructor may expect you to be perceptive enough to refer to the Table of Contents.

1. When you first approach a chapter, page through it fairly quickly, noting boldface headings and subheadings, examining figures, illustrations, charts, etc., and thinking about any highlighted vocabulary terms and concepts. Also take note of the pedagogical aids at the end of the chapter--study questions, summary, etc.
2. When you have finished surveying the chapter, return to the beginning and read in more detail. Remember to concentrate upon understanding. Don't simply read through the words. Any words that you don't understand you should look up. If you own the book and intend to keep it, you may want to write definitions of such words in the margins. You may also find it helpful to make observations and other useful notes in the margins. If you don't intend to keep the book yourself, you should carry out similar activities on a page in your class notebook.
3. On this first trip through the chapter, you should concentrate upon catching the major subjects and points of the material. Also take note of those things that you don't understand. If the lecture on the material doesn't clarify those points, you should ask your instructor to explain.

C. Following coverage of the chapter's material in class, you should go back to the book and read it again. It will probably be helpful to skim through it first, as you did when you first looked at it. The tables and figures should be more readily read in detail. If you are a truly conscientious student, you will outline the chapter and prepare a vocabulary list of the terms that are pertinent.

D. At this time you should think seriously about the review and study questions at the end of the chapter. Do your best to answer all of them as if they were a take-home exam.

E. You may also want to develop a system of cross-referencing symbols to use when comparing your class notes to your notes from the text.

F. Remember that your instructor will probably not use the same words that you find in the textbook. Nothing is more frustrating than to discover that what you hear in class is no more than a rehash of what you read in the book. However, if your instructor knows his/her subject, and the author of your text knows his/her subject, the meat of what they say should be the same. NOTE: Nobody is infallible. Your instructor may make mistakes. Don't expect him or her to be more than human.

III. Preparing Assignments

A. Here's another thing we have all been told thousands of times: Don't leave assignments until the day before they are due! If you have a paper to write or a lab report to prepare, begin it as soon as possible. In most cases, instructors will be delighted to receive work early. Remember that many papers or projects require quite a bit of research before you can even begin writing. In most cases, it is impossible to accomplish the necessary preparation in one day or even one week. In some cases, instructors won't accept late work at all. They are perfectly justified.

B. Another sore point: Be aware of the appearance of the work you submit. You should want to be proud of every assignment you submit, and that includes being proud of its appearance. If possible, assignments should always be typed. Never turn in an assignment written in pencil. Pages torn out of notebooks are sloppy and unsightly. Think about this point every time you hand an instructor an assignment. That paper represents the quality of your work, and your instructor is perfectly justified in taking its appearance into consideration when assigning a grade.

C. An increasing number of instructors are requiring that all outside work be typed. If you don't type, you should consider learning how. If you don't want to do this, you should begin investigating ways and means of getting someone else to type your papers. This will often mean paying a professional typist. Costs vary, but be prepared to pay a considerable amount. A really good typist may be able to turn out 6-10 pages an hour. Think about what you consider an appropriate hourly wage when you consider how much you should expect to pay a typist. Another point you must consider is that it will add to the time necessary to prepare a paper if you have to go to someone else to type it. In planning the time necessary for typing, consider the following points:

1. Your typist may have other customers who are just as anxious as you are.

2. A paper takes time to type.
3. Even the best typist makes mistakes. Your paper must be carefully proofread by you.
4. After proofreading, the typist must have time to make the necessary corrections.

D. If you prepare your assignment using a word processor, make sure that you run the spell checker/grammar checker before printing the final copy of your assignment. There is no excuse for poor spelling and/or grammar if you are using a word processor.

E. If you have never written an assignment or class paper before, or if you are unsure of your writing skills, the Communications Support Center (located in building 5-261) can give you assistance.

IV. Preparing for Exams

A. Keep in mind that you want to be an active learner, not a passive one. The more you use and manipulate the information, the better you will understand it. Using and manipulating information in as many ways as possible also maximizes your ability to access your memory.

B. Do not wait until the night before an exam to study! Of course, you should be regularly reviewing your notes, but the preparation still takes time.

C. If your instructor hasn't explained to you how he or she designs exams, ask. This is a perfectly legitimate concern. However, keep in mind that an instructor has the right to design exams in whatever fashion he or she sees fit, and in most cases you have no business asking for changes in that design. You need to learn to handle all testing styles--including the dreaded essay exam!

D. A good first step in preparation is to read through your notes a couple of times. While you are doing this, you might also:

1. Highlight major topics and subtopics, with the goal of generating an outline of your notes. Even if you take your notes in outline form, this is a good practice. Major topics often extend through more than one day's lecture, and it is easy to lose track of the overall picture from day to day.
2. With a second color, highlight all vocabulary terms.

E. Outline the entire set of notes. When you study a large body of information, you should study from concept to detail, not the other way around. It will, in fact, be much easier to learn the details if you take the time to learn the concept and theory first. The least efficient approach to studying is to attempt to memorize your notes from beginning to end. It's not the words that are important--it's the ideas.

F. Consider ways of dealing with the information other than those used in class. The more ways you can manipulate and experience the material you are trying to learn, the more secure your understanding and memory will be. Some suggestions:

1. Make charts, diagrams and graphs.
2. Make lists.
3. If the subject matter includes structures, practice drawing those structures. Remember that a drawing is useless unless the important structures are labeled.

G. There are almost always types of information that you will have to memorize (e.g. vocabulary). No one has ever invented a better device for memorizing than flash cards.

H. One of the most universally effective ways to polish off your study activities is to prepare a self-test.

1. Challenge yourself as severely as you can.
2. As you are studying, keep a running collection of "exam questions." If you seriously attempt to write difficult and meaningful questions, by the time you finish you will have created a formidable exam. When you begin to feel you're ready for your instructor's exam, take out your questions and see if you can answer them. If you can't, you may need to go back and reinforce some of the things you are trying to learn.

I. Never, ever pull an "All-Nighter" on the night before an exam. This is a "freshman trick," meaning that good students learn very quickly that it is futile. What you may gain from extra study time won't compensate for the loss of alertness and ability to concentrate due to lack of sleep.

J. On exam day:

1. Try not to "cram" during every spare moment before an exam. This only increases the feeling of desperation which leads to panic, and then to test anxiety. You may find it useful, on the night before an exam, to jot down a few ideas or facts which you wish to have fresh in your mind when you begin the exam. Read through your list a couple of times when you get up in the morning and/or just before you take the exam then put it away. This kind of memory reinforcement not only improves your performance on the test, it also improves your long-term memory of the material.
2. Be physically prepared.
 - a. Get a good night's sleep.
 - b. Bring necessary writing materials to the test--at least 2 writing tools, erasers, Scantrons, calculators if appropriate and allowed. Be aware of what the instructor has specified as permitted for use. Some instructors object to exams written pencil; some prohibit use of tools like calculators. It is your responsibility to know these requirements; you should be prepared to take the consequences if you don't.
 - c. This may seem silly, but go to the bathroom just before the exam. Don't expect your teacher to let you leave to do this during the test! The tension which generally goes along with taking an exam may increase the need to perform this physical activity, so you may need to go, even though you don't particularly feel like it.

V. Some Final Suggestions

A. You should receive a syllabus for each class. This is the Rule Book for that. Know everything on that syllabus! Your teacher has the right to expect you to know and abide by any rules and stipulations on that document, and it is perfectly within his/her rights to penalize you for failing to do so. Respect dates and deadlines, and expect to lose points if you turn things in late.

B. Never miss an exam if you can help it. You will rarely be more ready for the exam in two or three days than you are on the scheduled date, and the annoyance the teacher will feel about having to arrange a special exam time for you can actually hurt your grade in the end. Miss exams only if you absolutely have to.

C. Save everything. Never throw away a handout or a returned assignment or exam. With this in mind, equip yourself with a pouched folder for each class.

D. Develop systematic behavior patterns associated with your schoolwork.

1. Keep your class materials together and neat.
2. Never allow yourself to be caught at school without the necessary notebooks and materials. If you develop systematic habits with respect to attending classes, etc., this will be no problem.

E. It is excellent practice to set aside a study area at home, and to designate a particular span of time each day as study time. However, don't fall into the trap of feeling that study should never exceed the preordained time limits. You put in as much study time as is necessary to master the material for your classes.