Course Information

Course Name
Brain, Mind, and Behavior

Course Number
MCB N61

Course Credits
Three (3) semester hours (approximately 45 clock hours)

Prerequisites/Co-requisites
No prerequisites for the course

Course Description
This course deals with the structure and function of the human nervous system, with an emphasis on how brain physiology and chemistry are related to human behavior. This is a comprehensive introduction to the exciting field of contemporary neuroscience for students of ALL backgrounds and interests.

Required Textbooks and Resources


Comments on the textbooks:

The primary textbook for this class is An Introduction to Brain and Behavior by Brian Kolb and Ian Whishaw. The current edition of this text is the 3rd edition, published in 2009. If you obtain a copy of the second edition, that will suffice, as the two editions are quite similar. Note that the chapter and figure numbers may, however, differ. Some copies of this text come with a CD containing supplementary material. This material is interesting, although not required.

The learning objectives of this class can be met by assimilating the material from the lectures and from reading The Double Helix. The exams will be based on material from the lectures and from The Double Helix. Thus, the Brain and Behavior textbook is not technically required. However, in order to get the most from this class and to truly appreciate this subject, reading along in the textbook is very highly recommended. There is a very large amount of material to assimilate in six weeks time and having the additional well-illustrated and well-written anchor of the textbook will likely prove highly beneficial.

Reading The Double Helix is required for this class and broad content questions from this book will be on the exams. Although this book does not deal specifically with the subject of “Brain, Mind, and Behavior,” it does describe a pivotal event in the history of 20th-century biology that sets the stage for events related to the unfolding of cellular and molecular neuroscience.

Copyright UC Regents
Understanding the conceptual framework articulated in the story of *The Double Helix* is an important part of the philosophy of this class. *The Double Helix* was written by James Watson and first published in 1968. It has been reissued several times since then. Any edition of this book will suffice, as the text is the same in all editions. The Norton Critical Edition edited by Gunther Stent is recommended. If you have this edition, then it is also recommended that you read Gunther Stent's excellent historical introduction and summary of the book reviews. You will not be responsible on exams for parts of the book other than the primary text by Watson. However, if you wish to get the most from this class, the reading of Stent's historical commentary on *The Double Helix* is highly recommended.

**Learning Activities**

This course is designed to provide the student with a survey of the mind, brain, and behavior. A variety of learning activities are designed to accommodate diverse learning styles and build a community of learners. Learning activities for this course include the following:

1. Read the assigned textbook pages.
2. Watch and listen to the PowerPoint lecture presentations.
3. Read web-based announcements and postings assigned during the course.
4. Compose and post assigned responses to lectures and readings.
5. Complete midterm exams and final exam.
6. Complete writing assignments.

**Readings**

Read the assigned chapters for the Module. View the assigned multimedia presentations. The module Key Concepts and multimedia lectures will provide an overview to assist students in focusing their study for assignments and exams. Readings and Multimedia are listed under each respective **Week #** button. Specific reading assignments are listed on the Course Schedule and in the specific Modules.

**Multimedia**

A list of PowerPoint lectures can be located on the Course Schedule and in the specific modules. Links to the PowerPoint lectures can be found within each Module. Note that for each narrated PowerPoint lecture, there is also a PDF handout. This supplement is available for printing and note taking.

**Discussions**

Threaded Discussions in this course reflect topics designed to promote critical thinking about the module under study.

Each week one or two discussion questions will be assigned for an original posting to the Discussion page on the Website. That same week you are to continue the discussion with a written response to at least one colleague’s posted discussion by posting a thread to the Discussion Forum on the Website. See details regarding your postings in each Module section of this manual.
Threaded Discussions are asynchronous (not real time) discussions about a particular topic, discussion question, problem, or case study posted by a faculty member, student, or staff member.

The topic may include a posting deadline date for the discussion to conclude or adjourn.

While the exact thread of the discussion may be difficult to follow in a Chat Session, the thread is easy to follow in an asynchronous discussion, because there is no Internet time lag.

Participants can readily read all the previous postings in chronological order and make pertinent comments that add to the discussion, or ask questions for clarification.

- They post new thoughts, opinions, literature review, perspectives, or questions about the issue under discussion.
- Instructors will add reaction and summation comments from time to time.

Student Lounge

The Student Lounge is our place for informal discussion, a place to create new topic threads and share common issues or experiences, class-related or not. Please use that forum to post questions about the course material, answers to help other students, and general FAQs so that all students in the course may benefit from the exchange.

Homework Assignments

Students will be required to complete 4 writing assignments based on the reading assignments and weekly lectures.

1. Homework assignment 1 is a description and analysis of an article which you find from the news media and is due Week 2. Please refer to the course schedule and/or calendar for due dates.

   - Your assignment is to find a news report, appearing within the past 3 months, about a topic in neuroscience, brain research, biological psychology, or whatever we wish to call these areas of study. The report should be from a news-media publication, not from a scientific journal. Then, IN YOUR OWN WORDS, write a summary description (150 to 300 words in length) of the news item, including a COMPLETE REFERENCE CITATION to the source of the news item. See www.lib.berkeley.edu/instruct/guides/citations.html for citation guidelines; use either APA or MLA style. Your summary description should convey the essence of what the news report is about and why you find it interesting. If there are parts of the report that are not clear to you, indicate what these are. We repeat, it is important that your description of the article be IN YOUR OWN WORDS. You should not simply copy material from the text of the article.

2. Homework assignment 2 is drawn from your reading of The Double Helix and is due Week 2.

   - In reading The Double Helix, you come to learn not only about the process by which the great scientific discovery of DNA’s structure was made, but also about the interplay that existed between many of the individuals who surrounded this discovery. Through Watson’s eyes, you learned interesting qualities about the various characters in the drama.

   - In our own lives, we sometimes realize that although we have one perspective on the world around us, our friends, family members, and colleagues may have a completely different view of the same events that are taking place.

   - In 500 to 800 words, write a coherent story from the perspective of one of the other characters with whom Watson interacts in the path to the discovery of the double-helical structure of DNA.

   - Your story must have some basis in the information presented in The Double Helix, but it must also give a different perspective from that of Watson. This will necessarily involve some
speculation and artistic/poetic license on your part. That is, you will be making this up! It is historical fiction, based in fact from *The Double Helix* and plausible, but ultimately you are creating it.

- You are not attempting to retell the entire Double Helix story in 1-2 pages, just a small piece of it.

3. Homework assignment 3 is writing questions appropriate for an exam in MCB 61 and is due Week 4.
   - Create multiple-choice and short-answer questions appropriate for use on MCB N61 exams. Write one multiple-choice question and one short-answer question for each of the three (3) topics that you will be given. That means you will write a total of six (6) questions, 3 of which are multiple-choice and 3 of which are short-answer. Be sure to clearly indicate the correct answer to your questions.

4. Homework assignment 4 is a description and analysis of an article which you find from the news media and is due Week 5.
   - The assignment is IDENTICAL to homework assignment 1, reporting on a recent item from the news media.

Detailed instructions for the homework will be provided on the website.

Late assignments may not be accepted and will definitely not receive full credit.

The homework assignments are worth 6% of the final grade. However, you must turn in all four of the homework assignments and participate in all of the weekly discussion forums in order to receive better than a "C-" grade in the class.

**Virtual Office Hours - Chats**

The Course Instructors will set virtual office hours when students can communicate real time (synchronously). While these chats are optional they can be valuable for discussion, answering questions, and reviewing for exams.

Students can log into their Course Instructor's chat room by clicking on Chat >Join (next to Course Instructor's name).

Chats are optional; no points are awarded for participation.

**Examinations**

Exams will consist of multiple choice and short answer questions. Each midterm exam covers the preceding portion of the course and draws from material in the lectures and *The Double Helix*. The final exam is comprehensive and covers material from the entire semester. The two midterm exams will be administered online. For each exam there will be a designated 24-hour window of opportunity within which you may take the exam. You will have a timed 80-minute period to complete the exam. The final exam will be administered in a proctored setting. Those students in the Berkeley area will take the exam on the UC Berkeley campus. For those individuals located at distant locations, individual proctoring arrangements will be made.

All exams are closed book and notes; thus textbooks and notes should NOT be consulted during exams. Nor should there be any communication with fellow students. It is expected that students will abide by the UC Berkeley Student Code of Conduct and will demonstrate honesty and integrity while taking exams.
Midterm Exam 1
The midterm exam will cover course material from Lectures 1-8 (Modules / Weeks 1 and 2) and The Double Helix (edited by Gunther Stent). It is only required to read the main text of The Double Helix as written by James Watson. However, reading the opening historical essay by Gunther Stent will greatly enrich your understanding of the material. You will take this midterm within the course. It opens at 8 a.m. June 8 and closes promptly at 8 a.m. June 9.

Midterm Exam 2
The midterm exam will cover course material from Lectures 9-17 (Modules / Weeks 3 and 4). You will take this midterm within the course. It opens at 8 a.m. June 22 and closes promptly at 8 a.m. June 23.

Final Exam
The final exam will be proctored from 5 - 8 p.m. Wednesday, June 30, at a location to be announced. The exam will be comprehensive and will cover course material from Lectures 1-22 and The Double Helix.

Note the following requirements:

We will not change the days and times for these exams; mark your calendars now. There will be no make-up exams.
If you miss an exam, you will receive zero points for that exam.

In order to pass the class ("C-" or above) you must pass the final exam. Regardless of your scores on the midterms, a passing grade must be obtained on the final exam in order to pass the class.

Evaluation

Calculation of Course Grade

<table>
<thead>
<tr>
<th></th>
<th>Module 1 Week 1</th>
<th>Module 2 Week 2</th>
<th>Module 3 Week 3</th>
<th>Module 4 Week 4</th>
<th>Module 5 Week 5</th>
<th>Module 6 Week 6</th>
<th>% of Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Assignments</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>---</td>
<td>10%</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>---</td>
<td>1.5/1.5</td>
<td>---</td>
<td>1.5</td>
<td>1.5</td>
<td>---</td>
<td>6%</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>---</td>
<td>---</td>
<td>22</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>22%</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>22</td>
<td>---</td>
<td>22%</td>
</tr>
<tr>
<td>-----------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Final</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>40</td>
<td>40%</td>
</tr>
</tbody>
</table>

**Grading Scale**
The table above gives the % contributions for each of the exams and assignments toward your course grade.

**Grading Policy**
Course grade will be based on two midterm exams (22% each), a cumulative final exam (40%), 5 discussion forum postings (10%), and 4 written homework assignments (6%).

It will not be possible to get better than a "C-" grade in the class without turning in all four of the written homework assignments and participating in the discussion forums. If you are taking the course pass/not-pass, you must turn in all of the homework and participate in the discussion forums in order to pass the course.

As stated previously, you must pass the final exam in order to obtain a "C-" grade or better in the class. Regardless of your scores on the first two midterms, if you do not pass the final you will not pass the class.

The point ranges for the various letter grades will be determined at the end of the semester after all exams and other graded materials have been evaluated. In past years, it has generally been the case that 90% and above is the A-range and 80% and above is the B-range. The C, D, and F ranges are more variable and will depend on the range of scores that occur among the students this session.

Your letter grade in the course will be determined according to absolute standards of performance, which hopefully relate to your acquisition of knowledge and understanding of the material. You will not be competing against fellow students in the sense that we do not force letter grades to conform to a predetermined distribution. If everyone does extremely well, everyone could receive an "A" grade. If everyone does poorly (highly unlikely), then everyone could get a low grade. Rather than devoting energy to worrying about where grade cut-offs are, if you are truly interested in this subject and in getting the most from this class, we urge you to take the material seriously from the beginning, do the readings, and really make an effort to learn the material. Your efforts will be rewarded with deep knowledge and understanding of some truly fascinating topics. Good grades will be a side effect.

**Policies**

**Promptness**
Homework assignments and discussion forum postings all have specific final due dates and times. You will not receive full credit if assignments are submitted after the indicated due date.

Further, each online activity must be submitted through the course website by the due date. Fax or mail submission will not be accepted. Students who wait until the final hours prior to a submission deadline risk having problems with their ISP, hardware, software, or various other site access issues.
difficulties. Therefore, it is advisable to submit assignments and tests through the course website early. The multiple days allowed for submission are to accommodate the busy schedules of working professionals, not to accommodate procrastination. Students should plan accordingly and get into the habit of checking the course website several times each week, and submitting and posting early.

**Academic Integrity**
The UC Berkeley Rules, including the Student Code of Conduct, and documented policies of the department, college, and university related to academic integrity will be enforced. Any violation of these regulations, including acts of plagiarism or cheating, will be dealt with on an individual basis according to the severity of the misconduct. All exams are closed book. Any violation of this closed book policy will result in failure of course and possible academic suspension.

**Incomplete Course Grade**
Students who have substantially completed the course but for serious extenuating circumstances, are unable to complete final exam, may request an Incomplete Grade. This request must be submitted in writing or by e-mail to the GSI and Course Instructor. You must provide verifiable documentation for the seriousness of the extenuating circumstances. According to the policy of the College, Incomplete grades must be made up within the first three weeks of the next semester.

**Disability Clause**
Any students requiring course accommodations due to a physical, emotional, or learning disability must contact the course Instructor with their request at the beginning of the course. They must also contact the Disabled Students' Program (DSP), [http://dsp.berkeley.edu/services.html](http://dsp.berkeley.edu/services.html) at the beginning of the course with their request. The DSP will review all requests on an individual basis.

**Disclaimer**
As many factors may affect the development and progress of a class, the instructor reserves the right to alter this syllabus as may be required to assure attainment of course objectives.