

## ANNE ARUNDEL COMMUNITY COLLEGE

CHE 113-400 (Fundamentals of Organic & Biochemistry)

Fall 2014

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Webpage: <http://ola4.aacc.edu/masherer> ; Class webpage: Click CHE 113 from this webpage

Canvas content: log in through <http://myaacc.edu> ; Then choose CHE 113-400 under My Classroom

TEXTS & Supplies:	1) Bettelheim, Brown, et al., <u>Organic &amp; Biochemistry</u> , 8 <sup>th</sup> ed, 2013. (Solution Manual available & recommended, but not required.)
	2) <u>AACC CHE 113 Laboratory Manual</u> , 2014-2015.
	3) Scientific Calculator (programmable calculator not allowed for exams)

### TENTATIVE SCHEDULE

WEEK OF	LECTURE/TEXT REFERENCE	LABORATORY*
Aug 25	Chap 1 Organic Chem Chap 2 Alkanes	Intro, Safety, Scientific Lit Research, Check-in
Sep 3	Chap 2 Alkanes	Boil Pt & Density Determinations; Organic Molecular Models Part I
Sep 8	Chap 3 Alkenes & Alkynes	Organic Molecular Models Part II; Intro to Green Chemistry
Sep 15	Chap 4 Benzene & its Derivatives <b>Exam 1 on Wed</b>	Melting Point Determination
Sep 22	Chap 4 continued Chap 5 Alcohols, Ethers, & Thiols	Purification by Recrystallization
Sep 29	Chap 5 continued Chap 6 Chirality	Green Synthesis of Divanillin
Oct 6	Chap 7 Acids & Bases <b>Exam 2 on Wed</b>	Buffers & pH; NMR Intro
Oct 13	Chap 8 Amines Chap 9 Aldehydes & Ketones	Thin Layer Chromatography
Oct 20	Chap 10 Carboxylic Acids	Simple Distillation w/ Gas Chromatography
Oct 27	Chap 11 Carboxylic Anhydrides, Esters, & Amides; <b>Exam 3 on Wed</b>	Synthesis of Aspirin
Nov 3	Chap 12 Carbohydrates Chap 13 Lipids	Extraction of Cholesterol from Gallstones
Nov 10	Chap 13 continued Chap 14 Proteins	Separation of a Carboxylic Acid & Neutral Substance
Nov 17	Chap 14 continued Chap 15 Enzymes	Activity of Enzyme Catalase
Nov 24	Chap 17 Nucleic Acids	No lab
Dec 1	Chap 19 & 20 selected Metabolism topics	Metabolism Analysis Worksheet; Quiz; Check-out

*\*Overview only - detailed Lab Syllabus will be given in lab. You must register for a lab section.*

**Laboratory starts on the first day listed in the *Schedule of Classes*. Attendance is essential.**

Exam 1...Sep 17	Exam 2...Oct 8	Exam 3...Oct 29	Comprehensive Final Exam Mon, Dec 8, 5 – 7 PM
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CHE 112 is generally the appropriate course for science & engineering majors.

CHE 113 is generally the appropriate course for students in Allied Health Fields. If you are unsure about the suitability of this course for you, see the instructor and an academic advisor immediately.

**Closure of the college for any reason:** When the college reopens, this class will meet regardless of the remaining amount of class time.

<b>GRADING</b>	
Three Exams @ 100 points	300
Quizzes @ 20 pts (best 2 of 3)	40
Homework	60
Laboratory	200
Final Exam(comprehensive)	200
<b>TOTAL</b>	<b>800 points</b>

**Both lecture and laboratory must be passed (with 60% or greater) in order to pass this course.**

A student with 90% of the points (720 or more, traditional option) earns an “A”. To earn a “B” requires at least 80% (640 to 719, traditional option), 70% for a “C”, and 60% for a “D”. Less than 60 % is a failing grade.

**Make-up Exam Policy:** It is essential to write each exam during the scheduled class time. In the event of a missed exam, there will be a cumulative make-up exam given in the Testing Center during the next to the last week of class. It is the student’s responsibility to contact the instructor about the absence immediately and to request permission to sit for the make-up exam. Documentation of a compelling reason will be required.

**Essential Review:** Each student must review first semester general chemistry concepts (especially bonding, molecular geometry, and hybridization) in order to be successful in this course.

Solving problems is crucial to master new material and develop skill in applying concepts. Problems from the end of the chapters are assigned for practice. Answers to some problems are in the back of the text (starting on page A-8), and the *Solutions to Problems Manual* is available. Tests are problem solving oriented, and will be similar to these various problems. Solving problems, homework, and self-study are essential parts of test preparation.

**Graded Homework:**

Short (hand-written) homework assignments will be assigned at the end of most classes and are due at the beginning of the following class. No late assignments are accepted.

**A general guideline says an average of 2 to 3 hours of study time per week is necessary for each 1 credit hour. For this course that translates to an average of 8 to 12 hours per week. Some students will have to study more than this. Also, effective study is essential. Please see more information at <http://ola2.aacc.edu/vc/timemanagement/TimeManagementWebShop>**

**Learning Outcomes:** This is a General Education Science Course with Laboratory. The particular College-wide Core Competencies which are emphasized in this course are 1) Scientific Reasoning, 2) Quantitative Reasoning, 3) Innovative and Critical Thinking 4) Communication, 5) Information Literacy, and 6) Technology Fluency. Please read accompanying information on the class webpage about College-wide Competencies, CHE 113 Expected Learning Outcomes, and Homework.

**Additional Learning Resources:**

1. Professor’s Office Hours
2. Science Tutoring Center in the basement of the Dragun Science Bldg, Rm 5.
3. *Solutions to Problems Manual* (Bookstore & Library Reserve)
4. Current course textbook is also at the Library Reserve Desk
5. Free peer tutor (upon availability) arranged through Academic Support ([www.aacc.edu/tutoring/PeerTutoring](http://www.aacc.edu/tutoring/PeerTutoring))
6. Online Tutoring ([www.aacc.edu/tutoring/smarthinking](http://www.aacc.edu/tutoring/smarthinking) or <http://ola.aacc.edu/ostc/>)
7. Computer Lab in DRGN 120 – open schedule posted by door.

**Withdrawal:** In order to receive a “W” for the course, a student must submit the appropriate form at the Records Office by Nov 17. If you stop attending class, but do not formally withdraw with the Records Office, be aware that you will receive a grade based on your earned points out of the course total (800).

**Laboratory Safety & Operational Rules:** All CHE 113 students agree to acquaint themselves with the Laboratory Rules and to abide by them. You will receive a laboratory syllabus in your lab section.

**Academic Integrity and Civil Discourse:** Read the AACC policy on Academic Integrity at [www.aacc.edu/studentpolicies](http://www.aacc.edu/studentpolicies) and in the *AACC Catalog*. It is understood that students will abide by this and all college policies. The consequences of an academic integrity violation are very serious. A report is filed with the dean's office and the penalty is substantial: It may include failure for the course or suspension, depending on the gravity of the violation.

Impolite behavior will not be tolerated in this course.

**E-mail correspondence:** Please use ONLY use [masherer@aacc.edu](mailto:masherer@aacc.edu) for all e-mail correspondence with the professor.

All written communication must follow the conventional rules of grammar, punctuation, spelling, composition, and etiquette. This includes email messages, discussion postings, essay questions, and lab reports. Communication is one of the AACC Competences addressed by this course.

**Cell phones and all electronic communication devices** must be silent & not used during all class and lab times. During exams these devices must be turned off and in a backpack, purse or closed tote bag.

**Attendance Reporting:** AACC requires that professors report the attendance record for each student for each class.

**Notice of Nondiscrimination:** AACC is an equal opportunity, affirmative action, Title IX, ADA Title 504 compliant institution. Call Disability Support Services, 410-777-2306 or Maryland Relay 711, 72 hours in advance to request most accommodations. Requests for sign language interpreters, alternative format books or assistive technology require 30 days' notice. For information on AACC's compliance and complaints concerning discrimination or harassment, contact Kelly Koermer, J.D., federal compliance officer, at 410-777-2607 or Maryland Relay 711.

**Americans with Disabilities Act (ADA) Policy:** Disability Support Services (DSS) provides equal access to educational opportunities for qualified students with disabilities. The primary goal of DSS is to promote full participation of all students in college life. All self-identified students must provide current documentation in order to receive classroom accommodations. Adaptive aids and resources are available to assist qualified students and can be found on [www.aacc.edu/advising/DSSwelcome](http://www.aacc.edu/advising/DSSwelcome). DSS advisors are available to meet with students to discuss the procedures necessary to obtain appropriate documentation and to identify accommodations for which a student is eligible.

**Student Conduct Policy:** Students shall at all times conduct themselves in a manner that demonstrates mutual respect and courtesy, displays appropriate standards of behavior, and refrains from any actions or inactions that impinge on the rights of others or disrupt the teaching and/or learning process or the operations of the college. A student found in violation of this policy or any other College policy shall be subject to appropriate sanctions in accordance with the student conduct procedures. The full text of the policy is available on the AACC website (<http://www.aacc.edu/studentpolicies/default.cfm>) and in the Student Handbook and the *AACC Catalog*.)

**Science Office Address and Phone Number:**

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