

ANNE ARUNDEL COMMUNITY COLLEGE

CHE 213-001 Syllabus

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Webpage: <http://ola4.aacc.edu/masherer> ; Class webpage: Click CHE 213 from this webpage

Canvas content: log in through <http://myaacc.edu> ; Then click on CHE 213 under My Classroom

Fall 2017

Office: DRGN 226

Email: masherer@aacc.edu

Office Hours: \_\_\_\_\_

TEXTS & Equipment	1) Klein, David, <u>Organic Chemistry</u> , 3 <sup>rd</sup> ed., John Wiley and Sons, Inc., 2017. Note: e-textbook is available from publisher, see additional information on page 3. (accompanying <i>Study Guide &amp; Solutions Manual</i> recommended, but not required.)
	2) Williamson et al., <u>Macroscale and Microscale Organic Experiments</u> , AACC ed., Cengage Learning, 2011.
	3) Scientific Calculator (programmable calculator not allowed for exams)

TENTATIVE SCHEDULE

WEEK OF	LECTURE/TEXT REFERENCE	LABORATORY*
Aug 29	Introduction & Review Chap 1, 2, & 3	Intro, Safety, Waste Disposal, Check-in; Thermometer Calibration, Chem Lit Research
Sep 5	Chap 4 Alkanes & Cycloalkanes	Melting Point Determination
Sep 12	Chap 4 continued	Recrystallization of Acetanilide (macroscale)
Sep 19	Chap 4 continued Chap 5 Stereoisomerism	Solubility Tests & Recrystallization (semi-microscale)
Sep 26	Chap 5 continued <b>Exam 1</b> on Thursday	Thin Layer Chromatography;
Oct 3	Chap 6 Chemical Reactivity and Mechanisms	Column Chromatography Mid-term Lab Quiz
Oct 10	Chap 7 Alkyl Halides: Nucleophilic Substitution Reactions & Elimination Reactions	Boiling Point Determination & Distillation
Oct 17	Chap 7 continued <b>Exam 2</b> on Thursday	Distillation, continued
Oct 24	Chap 8 Alkenes	Extraction
Oct 31	Chap 8 continued Chap 9 Alkynes	Extraction, continued
Nov 7	Chap 9 continued Chap 10 Radical Reactions	Radical Initiated Chlorination : GC Analysis
Nov 14	Chap 10 continued, <b>Exam 3</b> on Thursday	Synthesis of Divanillin
Nov 21	Chap 14 Infrared Spectroscopy and Mass Spectrometry	Divanillin, continued; Sublimation of an Unknown Substance
Nov 28	Chap 14 continued Chap 15 Nuclear Magnetic Resonance	Suzuki-Miyaura Coupling Rxn
Dec 5	Chap 15 continued Review	Final Lab Quiz, Check-out

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

Exam 1.....Sep 28, Thursday

Exam 2.....Oct 19, Thursday

Exam 3.....Nov 16, Thursday

Final Exam.....Dec 14, Thursday at 12:30 – 2:30 pm

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

<b>GRADING:</b>	Traditional Option	Service Learning Option
Three Exams @ 100 points	300	300
Three Quizzes @ 30 points	90	90
Homework & Class work	50	50
Service Learning	N/A	30
Laboratory (150 pts x 4/3)	200	200
Final Exam (comprehensive)	160	160
<b>TOTAL</b>	<b>800 points</b>	<b>830 points</b>

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

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

It is essential to write each exam and quiz 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. There are no make-up quizzes.

**Service Learning is an option which you may choose.** More information is on a subsequent page.

**An Honors Contract is an option for an eligible student.** More information is on a subsequent page.

**Homework:** Homework is crucial to master new material and develop skill in applying concepts. Some homework is graded. – These problem sets will be clearly labeled as “graded”. Additional problems from the chapters are assigned for practice. Answers to in-text problems are in the back of the text (starting on page A- ), answers to all problems are in the *Study Guide & Solutions Manual*. Tests are problem solving oriented, and will be similar to these various problems.

**Homework is an essential part of test preparation.**

**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>**

**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. Computer Lab in DRGN 120 – open schedule posted by door.
5. Current course textbook is also at the Library Reserve Desk.

**Withdrawal:** In order to receive a “W” for the course, a student must submit the appropriate form at the Records Office by Nov 20. 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 .

**Laboratory Safety & Operational Rules:** All CHE 213 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/policies](http://www.aacc.edu/policies) 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 include your name and class section (CHE213-001) in all 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 unless directed by the instructor. 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.

***AACC Catalog Description for CHE 213, Organic Chemistry 1***

4 credit hours – three hours of lecture and three hours of laboratory weekly; one term.

Study the chemistry of hydrocarbons and their simple derivatives, emphasizing their structures, properties, and mechanisms of reactions. Use general laboratory techniques and procedures in organic chemistry and learn modern methods of analysis, including gas chromatography. Lab fee \$50.

Prerequisite CHE 112

Note: Credit is not given for both CHE 113 and CHE 213.

Please read accompanying information about Homework, Classwork, College-wide Competencies, and CHE 213 Expected Learning Outcomes.

**Additional information about course textbook formats:** You may purchase the print textbook and WileyPLUS code at the bookstore, or, you may choose an electronic version of the textbook. To help you figure out which option you prefer, the publisher provides a 14 day Free Trial. (Go to WileyPLUS.com, type in Anne Arundel Community College, and go to class section CHE 213-001.)

**Science Office Address and Phone Number:**

Anne Arundel Community College  
101 College Pky  
Dragun Science Building, Room 226  
Arnold, MD 21012  
410-777-2260

*Anne Arundel Community College Syllabus Statements*

**Disability Support Services Statement:** The Disability Support Services Office (DSS) provides equal access to educational opportunities for qualified students with disabilities. Students interested in course accommodations must provide relevant documentation in order to receive accommodations. For information, please call Courtney Sales, Program Manager for DSS, at 410.777.2306, email her at [cjsales@aacc.edu](mailto:cjsales@aacc.edu) or visit <http://www.aacc.edu/resources/disability-support-services> . Deaf and hard of hearing students can reach the office by calling Maryland Relay 711 or by emailing [dss@aacc.edu](mailto:dss@aacc.edu).

**Canvas ADA Statement:** Canvas provides a user experience that is easy, simple, and intuitive. Special attention has been paid to making Canvas screen-readable. The Rich Content Editor encourages users to create universally accessible content. Canvas is designed to allow limited customization of colors and schemes to be accessible for all users. The National Federation of the Blind granted Canvas the Gold Level Web Certification in 2010. Find more information here: <http://www.instructure.com/accessibility>

**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 sexual assault, sexual misconduct, discrimination or harassment, contact Suzanne Boyer, federal compliance officer at 410-777-1239 or [complianceofficer@aacc.edu](mailto:complianceofficer@aacc.edu) or Felicia Patterson, Title IX coordinator at 410-777-2256, or Maryland Relay 711.

**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/policies>) and in the Student Handbook and College catalog.

**Acceptable Use of Information Technology Resources:** This policy governs the acceptable use of the college information resources by anyone. This policy applies to students enrolled in this course at any time they are using college resources. The goal of the usage policy is to encourage an environment of learning in which all students can interact in an open, legal, and ethical manner. The full text of the policy is available on the AACC website (<http://www.aacc.edu/policies>) and in the Student Handbook and College catalog.

**Emergency Class Cancellation:** If an emergency arises in which the college is closed, the planned activity for that day or assignment will occur or be due the next day that classes resume on campus. Students can also check [www.aacc.edu](http://www.aacc.edu). You can sign up for text messaging to your cell phone using the following website: <http://www.aacc.edu/campusalerts> .

## Service Learning for CHE 213 Students

Service Learning is an opportunity for students to enhance their classroom learning by working on relevant projects which serve the community. For the student, service learning is engaged learning: It is active, applied, and connected to the good of the community. The community benefits not only from the students' work, but also by fostering civic involvement and developing future leaders.

### *The Commitment.*

During the semester the student works for an approved agency/organization for 10 to 20 hours. The agency designates a supervisor who introduces the student to the project and provides guidance as needed. The student works in a responsible, professional manner, and she/he also maintains a log of hours worked. The supervisor is asked to verify this and to provide a short written evaluation at the end of the service. Additionally, the student writes a reflective paper according to the criteria set by the professor. In this paper the student integrates his/her service learning with course concepts. The service learning component of a course is one of a number of its assessments, among the other assessments are the more traditional exams, homework, lab work, and such.

### *Nature of the Service Projects.*

Probably most projects in which students would participate are ongoing and lend themselves to multiple workers over time. Projects might involve such tasks as data validation, routine data analysis, internet research, lab testing, monitoring in the field, or site remediation.

### *Establishing the Contract for Participation.*

All arrangements for service learning are coordinated through the Center for Learning through Service at AACC. Briefly, the prospective student will review the list of opportunities, consult with the professor, and call the agency to request an interview for an assignment. If accepted, there is a form (The Service Learning Contract) which must be signed by the student, the site supervisor, and the professor. ***The deadline for submitting this contract and the liability waiver is October 3, 2017.***

There is much more information on the program's website:

<http://www.aacc.edu/campus-life/serve-your-community>

In particular, *Student Handbook with Community Partners* document is available from the above site. It includes descriptions of the Community Partners and their contact information.

The phone number for the Director for Learning through Service is 410-777-2366.

### *Possible Projects for CHE 213 for the Fall, 2017 Semester.*

**There are only a limited number of projects available**, so the sooner a student speaks to the professor and gets started in the process, the more likely she/he will be able to participate. Please consult the Service Learning Student Handbook to preview possible opportunities with one of the Community Partners listed in the Handbook.. For examples: Arlington Echo Outdoor Education Center, Chesapeake Bay Environmental Center, Chesapeake Bay Foundation, Chesapeake Children's Museum, Jug Bay Wetlands Sanctuary, or Real Food Farm.

***Service Learning Fair with Community Partners:*** Meet Community Partners & complete your service learning contract at the fair. ***Tuesday, September 19, 10 AM – 2 PM***, Quad (If Rain: SUN Dining Hall).

***Completed Hours Log and Evaluation Form due Nov 28, 2017.***

***Reflective Paper / Journal due Dec 1, 2017.***

In this paper, the student relates his/her project to chemistry concepts. For example, if the project is developing a streamside buffer of vegetation, describe how this affects the water chemistry of the stream. The student will follow the guidelines given by the professor for this paper.

## Honors Contract for CHE 213 Criteria and Requirements

An interested, eligible student must:

1. Provide the professor with evidence of eligibility: From your myaacc page, under Personal Profile, click Honors Eligibility. If you are eligible, there will be an option to print out a form (pdf) stating your eligibility. Print this and bring it to the professor within the first week.
2. Set-up an appointment with the professor to discuss your honors study project within the first week.
3. In consultation with the professor, complete and submit the honors contract application to the honors committee via email ([honors@aacc.edu](mailto:honors@aacc.edu)) before the end of the first week of classes.
4. Complete the regular coursework of CHE 213 (exams, quizzes, homework, laboratory, and, if chosen, service learning) and complete the honors study project delineated on the honors contract.
5. Understand the following:
  - Once the contract is approved by the honors committee, a student cannot revert back to the non-honors option after the end of the first month (for the exact date see <http://www.aacc.edu/about/administrative-offices/honors-program> .
  - If the student does not complete the honors study project, the highest grade the student could earn is a 'C'.
  - In order to receive honors credit, a student must earn an A or B in the course.
  - In order to maintain eligibility in the Honors Program, a student must maintain a 3.4 overall GPA in honors courses.
6. The Honors Program website is <http://www.aacc.edu/about/administrative-offices/honors-program> .