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**Ohio Articulation Number (OAN)  
Course Submission Form  
2005-2006**



College/University Kent State University

Course(s) Submitted(Title & Course #) Basic Organic Chemistry – for  
CHEM20481  
Ohio Articulation Number OSC010

Date 01/27/06

Name and title of individual submitting on behalf of the college/university

Name Gayle Ormiston Title Associate Provost for Faculty Affairs and Curriculum

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Credit Hours 4 qtr \_\_\_\_\_ sem 4

Lecture Hours 4

Laboratory Hours \_\_\_\_\_ (if applicable)

Pre-Requisites(s) Course work (if applicable)

CHEM10061 OR CHEM10961

Placement Score (if applicable)

(Name of test) \_\_\_\_\_

(Domain) \_\_\_\_\_ (Score) \_\_\_\_\_

Catalog/Course Description (Includes Course Title and Course #)

Basic Organic Chemistry CHEM 20481 (4 cr h). Survey of the structure, preparation and reactions (including mechanisms) of organic compounds, emphasizing the chemistry of biologically important functional groups.

Texts/Outside Readings/Ancillary Materials

“Organic Chemistry” by Francis Carey, sixth edition (McGraw-Hill publishers, ISBN# 0-07-2828374) and associated solutions manual (ISBN# 0-07-288521-1).

Course Objectives and/or Plan of Work

Chapter 1: Structure Determines Properties.

Chapter 2: Hydrocarbon Frameworks. Alkanes.

Chapter 3: Conformations of Alkanes and Cycloalkanes

Chapter 7: Stereochemistry

Chapter 4: Alcohols and Alkyl Halides

Chapter 8: Nucleophilic Substitution.

Chapter 5: Structure and Preparation of Alkenes: Elimination Reactions.

Chapter 6: Reactions of Alkenes. Addition Reactions

Chapter 15: Alcohols, Diols and Thiols

Chapter 16: Ethers, Epoxides and Sulfides

Chapter 19: Carboxylic Acids

Chapter 20: Carboxylic Acid Derivatives: Nucleophilic Acyl Substitution

Chapter 17: Aldehydes and Ketones

Chapter 18: Enols and Enolates

Chapter 25: Carbohydrates

Description of Assessment and/or Evaluation of Student Learning

Three intra-term exams (60%), comprehensive final exam (20%), four in-class quizzes (20%) (plus up to 3 bonus% for excellent attendance).

Master Syllabi and Working Syllabi (if both are used)

**BASIC ORGANIC CHEMISTRY (20481)  
FALL 2005**

Instructor : Dr. Alex Seed (Office: Science Research Building Rm. 118; Laboratory:  
Rm. 121)

e-mail: [aseed@kent.edu](mailto:aseed@kent.edu), Tel: (330)672-9528, Fax: (330)672-3816

### **Class Times and Office Hours**

There are four classes per week (MTRF) that will take place between 8:50 a.m. and 9:40 a.m. in Williams Hall room 111.

My office hours are as follows:

Tuesday 10:30 a.m. – 11:30 a.m.

Wednesday 12:00 p.m. – 2:00 p.m.

Friday 10:00 a.m. – 12:00 p.m.

If you are unable to attend office hours for any reason you will find me very accommodating and I am always prepared to assist students when I have time.

A help session (these are optional although attendance will greatly benefit your knowledge and problem-solving skills) will be offered every week where we can discuss homework, mid-term exams and any other concerns that you may have. The format of these sessions will be such that I will not be presenting a lecture but rather that students will often be at the chalkboard in a discussion/seminar-type situation. These help sessions will be held between 4:15 p.m. - 5:15 p.m. every Friday in WMH216.

### **Text book**

The text book that will be used to supplement this course is “Organic Chemistry” by Francis Carey, sixth edition (McGraw-Hill publishers, ISBN# 0-07-2828374). Homework problems will be set from this text together with many problems of my own design. The required text and accompanying solutions manual (ISBN# 0-07-288521-1) will be placed on reserve in the Chemistry-Physics Library. Students may purchase the online solutions manual at: [www.mhhe.com/primis/online](http://www.mhhe.com/primis/online) (the cost is \$29.63). In addition, a number of course handouts are on my Vista web site. Please print out all of these handouts at your earliest possible convenience.

### **Course Content**

The primary aim of this course is to provide all students with the fundamental knowledge needed to truly understand the basics of organic chemistry and to be able to apply this knowledge to analyze and solve new problems. The importance of the biological aspects to all students in this course partly dictates the order in which topics are discussed. A number of chapters from the textbook are omitted where topics are not critical to student needs and the course objectives. Topics covered in this course will include the following:

Chapter 1: Structure Determines Properties.

Chapter 2: Hydrocarbon Frameworks. Alkanes.

Chapter 3: Conformations of Alkanes and Cycloalkanes (sections we will not cover include 3.13 and 3.14).

Chapter 7: Stereochemistry (sections we will not cover include 7.15-7.16).

Chapter 4: Alcohols and Alkyl Halides (sections we will not cover include 4.14-4.18).

Chapter 8: Nucleophilic Substitution.

Chapter 5: Structure and Preparation of Alkenes: Elimination Reactions.

Chapter 6: Reactions of Alkenes. Addition Reactions (sections we will not cover include 6.8, 6.9 and 6.22).

Chapter 15: Alcohols, Diols and Thiols (sections we will not cover include H<sub>2</sub> reduction in 15.2, 15.12 and 15.14). We will also cover 14.2-14.7.

Chapter 16: Ethers, Epoxides and Sulfides (sections we will not cover include 16.4, 16.5 and 16.16-16.18).

Chapter 19: Carboxylic Acids (19.1-19.4, 19.6 and 19.14 will be covered).

Chapter 20: Carboxylic Acid Derivatives: Nucleophilic Acyl Substitution (sections we will not cover include 20.16-20.21).

Chapter 17: Aldehydes and Ketones (sections we will not cover include 17.6, 17.7, 17.11-17.13, 17.16 and 17.17).

Chapter 18: Enols and Enolates (18.1-18.4, 18.6, 18.9 and 18.15 will be covered).

Chapter 25: Carbohydrates (25.6 and 25.7 will be covered).

You should ensure that you read the relevant material as we progress through the course.

Organic chemistry is a beautiful and elegant subject that is highly logical when taught and studied in the correct way. Mindless memorization of facts is to be avoided at all costs and is at complete odds with my personal goals for you. In order to gain understanding of the subject it is *essential* that you attempt to solve all of the homework problems that are set.

### **Homework**

During the semester I will be setting regular homework assignments which will not be formally assessed. Students are strongly urged to answer the set problems in the following help sessions. All of the model answers are on reserve in the Chemistry-Physics Library and my Vista website. Please ensure that you replace model answers in the file in their correct place and do not remove answer sheets from the library. If any answer sheets are missing please inform me as soon as possible and I will put a replacement model answer sheet on reserve.

### Examinations and Quizzes

A total of four examinations (all are comprehensive although the mid-terms will have a major focus) will be given during this lecture course. The mid-term examinations will be given on:

Friday 23rd September (8:50 a.m.-9:40 a.m.)

Monday 24th October (8:50 a.m.-9:40 a.m.)

Tuesday 22nd November (8:50 a.m.-9:40 a.m.)

The final examination will be given on Wednesday December 14th between 10:15 a.m. - 12:30 p.m. All of the examinations will be given in WMH111 where we usually meet. The mid-term examinations are each worth 20% of the final grade and the final is worth 20%. The remaining 20% will be allocated to in-class quizzes. There will be four quizzes (each worth 5%) that will be announced one week before the quiz is due to be given. The quizzes will last approximately 30 min. and will be given at the beginning of the class.

In addition, I will give up to 3% bonus credit for the amount of attendance in class (taken from Monday of the second week onward). For every class that is missed (without a valid excuse-see below) I will deduct 1% of the bonus available. I will take a roll at the beginning of every class meeting to evaluate this grade bonus. Please do not sign in for anyone else as this is not ethically acceptable (this will be considered as cheating and a grade of F will be assigned for the course for both students involved) and has been a source of annoyance to students in the past. Attendance is mandatory in any event. The only exceptions are a **documented** physician's excuse or extenuating circumstances (at my personal discretion). Your attendance record will also aid you in the future when you may require a reference from me. Getting to know you individually will enable me to write an objective reference. **There is no other available extra credit under any circumstances.**

During examinations students may not leave the room. If they do so their examination paper will be removed by the instructor and will be considered as completed. Please do not open the exam papers until instructed to do so.

I will return examination papers to students (after students have checked and verified their scores) and I will place a copy of the model answer of every exam on reserve in the Chemistry-Physics Library (and on my Vista website) as soon as the exam has been given. We will discuss all exam problems at the subsequent help sessions. I will also go through your exam papers with you personally and I urge you to make use of this service. I will allow the use of molecular model kits in exams and you should purchase a kit if you do not already have one. These kits are available from the KSU bookstore and <http://darlingmodels.com/welcome.html>.

### Grading Scale

The grading scale (this is fixed and will not be curved) for examinations and quizzes in this course is as follows:

A	84% and above
A-	80-83%

B+	77-79%
B	73-76%
B-	70-72%
C+	65-69%
C	60-64%
C-	55-59%
D+	51-54%
D	46-50%
D-	40-45%
F	39% and below

### **Additional Course Information**

My Vista web site may be accessed as follows:

Type **vista.kent.edu** into your web browser's address window.

Click on **Kent State University**.

Enter your **username** and **password** (these are the same as your Flashline username and password).

Francis Carey has a web site to accompany the course text. The web site address is:

[http://highered.mcgraw-hill.com/sites/0072828374/information\\_center\\_view0/student\\_resources.html](http://highered.mcgraw-hill.com/sites/0072828374/information_center_view0/student_resources.html)

A number of useful worked examples and problems may be found at this web site. Also included are a number of molecular models that you can visualize and manipulate on-screen. This will enable you to appreciate space-filled 3D representations of real molecules. This is especially useful for predicting reactivity in, for example,  $S_N2$  and  $S_N1$  chemistry. Web-site details may be found inside the front cover of your textbook.

A significant amount of pedagogical research has shown that active and cooperative learning aids in the building of student learning communities and contributes greatly to the learning process in class. This semester we will use cooperative learning in the classroom each week for the group solving of problems that focus on fundamental and critical topics. During these sessions you will work in small groups to collectively solve brief problems that I will be setting. We will use CPS in these sessions. Enrolment for CPS is described below:

### **Student Instructions** **Class Key: L13361N585**

#### **Before you Connect you Must Have:**

- An Internet connection – either a direct connection or a dialup connection.
- You may need a check or credit card for enrollment/coupon code purchase (only if you did not purchase a new text book with coupon code inside).

## Now you are Ready to Connect to CPSONline

1. Connect to the Internet.
2. Enter [www.einstruction.com](http://www.einstruction.com) into the location or address box and press the Enter key.
3. Click on the **Students** button at the top of the window.
4. Select **Kent State** from the drop-down menu.
5. Click **Choose Course**.
6. Click **Create Your Account**.
7. Fill in the required information and click **Submit**. Note: the serial number is found in the battery compartment just to the rear of the batteries and is a combination of 7 letters and numbers. Enter the enrollment/coupon code into the code field. Your enrollment/coupon code is packaged with your new McGraw Hill textbook. If you do not have an enrollment/coupon code you will need to choose **'I do not have a code'** then continue through the registration process. You will be able to **purchase access using a credit card or personal check**. Do not type a username and password yet.
8. Click **Yes** to enroll in a class now.
9. Enter the class key (given above) into the **Class Key** box.

🔊 **NOTE:** This is the only time you will need the class key and enrollment/coupon code. After enrolling, you will need only your username and password.

10. Click **Submit**.
11. Click **Finish**. You may now be presented with the following options: access for this class only, access to all classes for a semester, two year subscription, lifetime subscription.
12. Once you have finished enrolling in your class, click **Log Out**. *For CPSONline to properly record your information you must log out of CPSONline (do not simply close the window).*

### Tips

- Print your username, password and response pad number, and put them in a safe place.
- Enter your Class Key, enrollment/coupon code, and Serial #, exactly as you received them.
- Since the response pad numbers are assigned on a 'first-come, first-serve' basis per class, **if you are enrolled in more than one class that uses CPS and CPSONline, then the assigned response pad number for each class may be different**. Please make a note of the response pad number assigned to you at the end of the enrollment process for each class.
- Reset the Signal inside the Pad - If a pad stops responding, or responds as the incorrect pad number: 1.) Take the batteries out of the pad(s), 2.) Press any answer key on the pad(s) and hold it down for approximately 10 seconds, 3.) Replace the

batteries and try the pad(s) again.

If you have questions about CPSONline, log onto [www.einstruction.com](http://www.einstruction.com), and use the **Customer Support** menu option. From the Tech Support page, go to the bottom and type in your name to enter the live Text Chat room for immediate help.

### **Policy on Cheating and Plagiarism**

For the duration of all examinations and quizzes cell phones must be switched off and placed in **closed** bags. Materials that have not been approved (e.g. PDAs, pagers etc.) for use in the examination/quiz should also be left in a closed bag. Bags must be placed at the front of the classroom, rear of the classroom, or under your chair for the duration of the examination/quiz. Programmable calculators may not be used in examinations/quizzes. Academic dishonesty is not tolerated at Kent State University and students caught cheating will be assigned an F. In addition, the instructor shall report the offense to Judicial Affairs. The maximum sanction that may be assigned by Judicial Affairs if a student is determined to be responsible for the alleged offense is disciplinary suspension from the university. Academic dishonesty includes (but is not limited to) copying material from another student during an exam, quiz, or assignment, plagiarism, falsifying data, changing answers on an exam paper after the paper has been graded etc.

### **University Disability Policy**

University policy 3342-3-18 requires that students with disabilities be provided reasonable accommodations to ensure their equal access to course content. If you have a documented disability and require accommodations please contact the instructor at the beginning of the semester to make arrangements for necessary classroom adjustments. Please note, you must verify your eligibility for these through Student Disability Services (contact 330-672-3391 or visit [www.kent.edu/sds](http://www.kent.edu/sds) for more information on registration procedures).

Additional Documentation

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OBR Use

Action

Approved	
Additional Information Requested	
Rejected	
Date	

## **Ohio Articulation Number Form Directions**

This form is each institution's OAN course information. This information will be submitted to the Ohio Board of Regents, as part of the faculty review process for each OAN within a given TAG. This document is a locked form, so the only fields that need to be filled in can be opened. When you open this document, make sure the top of the screen, where the name of the document is displayed, says "Document1". The file can be saved in a Word folder or to your desktop and it creates a blank template to fill in. Please fill it in with as much of the requested information as possible. All of the fields in this document are expandable, and will adjust to fit as many characters as you need. Each field is design to accept cut and pastes from other document sources that you may have on campus.

Once you are done filling in your course information, you need to save this file. Since the Word document opened a blank version of this file, you will need to rename is it to save it. Under file, choose "Save as" and then input the name of the file. The naming scheme for this form is Institution-Year-OAN number-Course Title and Number.

Example, if you were ABC Community College, and you were submitting your Calculus I - Math110 course, the name of the file would be ABC-2005-OMT005-Calculus I-Math110. If two (or more) courses are required to fulfill that same OAN, you would submit ABC-2005-OMT005-Calculus I MTH 110 - Calculus II Math 111, and so on for multiple submissions.

When you are done with your submissions, please send them electronically to the Ohio Board of Regents so we can keep your information on file. Please send these to Ora McRae at [omcrae@regents.state.oh.us](mailto:omcrae@regents.state.oh.us) .