

Flavor and Fragrance Chemistry

CHM 312

M,W,F 11:30 pm - 12:20 pm

DOW L2

Dr. Jeff Turk

Kapp Science Center 246

Office Hours: MWF 8:30 - 9:30, TTh 11:30 - 12:30, or by appointment

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Optional Textbook: *The Chemistry of Fragrances: From Perfumer to Consumer*, 2nd ed.; 2006, Charles S Sell

Resources: *Perspectives in Flavor and Fragrance Research*; 2005, Philip Kraft & Karl A.D. Swift
Chemistry and Technology of Flavors and Fragrances; 2005, David Rowe
Perfumery: Practices and Principles; 1994, Robert R. Calkin & J. Stephan Jellinek
Perfumer and Flavorist. <http://perfumerflavorist.texterity.com>
The Good Scents Company. <http://thegoodscentscompany.com>
Fragrantica. <http://fragrantica.com>

Summary: *Fragrance* - the very word represents indulgence; pleasure; luxury - this course will show how chemistry is used in the exciting and rewarding fragrance industry. We will also study the chemistry of flavors, and how flavors and fragrances are intimately related. We'll learn the basis of our sense of smell and taste, the history of fragrances and about the modern flavors and fragrances industry. We will also learn different classes of flavor and fragrance chemicals, their isolation from nature and the creation of new flavor and fragrance ingredients. This course does not count as a DR.

Website: <http://DrTChemistry.com>

Office Hours: The office hours above are times during each week that I will make myself available to you. If the times listed do not coincide with your availability, please let me know in class or contact me via email so we can arrange a meeting. Please use these if you are having difficulties with the course material or if you just want to chat...

Grading: There will be two exams followed by a group presentation (no final exam). The examinations will reflect material covered in class and may include material covered in classroom handouts. Attendance is mandatory - absences due to illness or other legitimate reasons will only be excused by a

memo from a physician or the Counseling and Wellness Center. This syllabus is tentative and may change without notice. Regrading requests must be made within 48 hours of receipt of the exam. Academic dishonesty will be dealt with vigorously and will result in a zero for the exam/assignment.

| | | Approximate Grade Thresholds | |
|-------------------------------|--------------------------------------|------------------------------|----|
| Exam 1 (Nov 14) | 100 points | 0 | E |
| Exam 2 (Dec 12, 2 p.m.) | 100 points | 0.585 | DE |
| Individual Topic Presentation | 25 points | 0.6 | D |
| Team Presentation | 100 points | 0.685 | CD |
| | (50% by peers and 50% by instructor) | 0.69 | C |
| Quizzes | 60 points | 0.785 | BC |
| | | 0.79 | B |
| | | 0.885 | AB |
| | | 0.89 | A |

Class Topics

1. Introduction and History of Flavors and Fragrances
2. Understanding the Language of Chemistry (Review)
3. Taste and Sensation
4. Flavor Generation
5. Olfaction and Perception
6. Materials of Natural Origin
7. Ingredients for the Modern Perfume Industry