SYLLABUS
ENME 489R: Molecular Thermodynamics

Prerequisites:
ENES 232, MATH 241 (or equivalent)

Course Objective and Description:

The objective of this course is to build students' knowledge and skills in making predictions about the macroscopic properties of a system, such as its internal energy, enthalpy, entropy, heat capacity, chemical equilibrium constant, equation of state, etc., using information about the microscopic nature of the system. The example systems include ideal gases, real gases and crystalline solids.

Course Design
The course's Canvas site is at www.elms.umd.edu/. Announcements, homework, lecture slides, grades and other course related materials will be posted in Canvas. Course content will incorporate lectures, readings, exercises, and discussion. You will complete graded assignments as an individual and submit them via Canvas.

Class Times:
Class Meetings: Tuesday and Thursday, 11:00am - 12:15pm, BPS 0283

Instructors:
Dr. Bao Yang
Phone: 301-405-6007, Email: baoyang@umd.edu
Office hours: Location: 4164D Glenn L. Martin Hall
Hours: 4:00pm-5:00pm, Thursday, or by advanced appointment

Textbook:
An Introduction to Applied Statistical Thermodynamics, by Sandler.
Publisher: Wiley, ISBN: 9780470913475
This book will be reserved in STEM library.

Evaluation / Grading Criteria*:
The course grade will be calculated as follows:

Class Participation	8%
Homework	20%
Midterm Exam	32%
Final Exam	40%
TOTAL	100%

Requirements and Considerations:
1. Attendance and active participation are required. Please refer to the Absences, Assessment, Attendance and Syllabus policy given in https://academiccatalog.umd.edu/undergraduate/registration-academic-requirements-regulations/academic-records-regulations/

In exceptional circumstances (illness, university business, religious observances) extensions may be granted for assignments. However, all extensions must be approved by the instructor BEFORE the due date.

Please refer to the Course Related Policies given on the web
http://www.ugst.umd.edu/courserelatedpolicies.html

2**. Lectures** will normally be given by the Instructors. Occasionally, there will be a substitute. Lectures will deal with the general subject matter of the textbook but will also include material not in the text.

3. **Homework** will be assigned for each chapter. Homework problem solutions will be posted online. Students should view homework assignments as learning experiences. *You may consult with your classmates, but you must work on your homework individually. This is the only way you can assure yourself that you are ready for exams.*
As a courtesy to the professor, solutions should be written neatly

5. **Midterm Exam and Final Exam** are currently scheduled for *** and ***, respectively. These dates will be confirmed at least one week in advance. It is open book exam. It is important that you show all your work in order to receive full credit. No points will be given for an answer that doesn't include the procedure used to obtain it.

Makeup exams will be given only when a student can present evidence that an absence was caused by serious illness, a death in the immediate family, religious observance, or participation in University activities at the request of University authorities. Please contact the instructor before an anticipated exam absence, if at all possible.

6. **Technical Support.** Please review the *Student Resources to Learn Remotely* website, for help getting started with the tools you'll need in this course:
https://ugst.umd.edu/keeplearning/technology.html.

For assistance with technical and computing issues, contact the Office of Information Technology (OIT) by phone at 301-738-6363, or email at usg-itservicedesk@umd.edu.

Communication
I am required to communicate with you through your UMD email address. If you prefer to use another address, please consult the Office of Information Technology (OIT) to obtain directions for forwarding your UMD email to your preferred address if you don't wish to check both accounts.

Please don't hesitate to email me with updates, questions, or concerns. I will typically respond within 24 hours during the week and 48 hours on the weekend. I will notify you if I will have conflicts for which connection issues may delay a response.

Academic Integrity
The University of Maryland, College Park has a nationally recognized code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduates and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information, please visit https://studentconduct.umd.edu/

Academic integrity is a foundation for learning. The University has approved a Code of Academic Integrity available on the *Academic Integrity and Student Conduct Codes* web at https://academiccatalog.umd.edu/undergraduate/registration-academic-requirements-regulations/academic-integrity-student-conduct-codes/.

The Code prohibits students from cheating on exams, plagiarizing papers, forging signatures, etc. The Code is administered by a Student Honor Council, which strives to promote a community of trust on the College Park campus. Allegations of academic dishonesty can be reported directly to the Honor Council (301-314-8204) by any member of the campus community.

The University Senate requires that students sign this statement if it is included on an exam or assignment:

> *"I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment)."*

Disclaimer

Please be aware revisions may be made to this syllabus over the course of the semester, and as such, the content contained within may be subject to change. I will announce any revisions via the discussion in Canvas and during live sessions.