UNIVERSITY OF MICHIGAN

***Graduate Credit Distance Learning Course***

*In Chemical Engineering* - WINTER 2008

This course will be available online on ctools with University of Michigan uniqname and password. You will have access to ctools after you have been admitted to the graduate school.

# ChE 542- Intermediate Transport Phenomena, 3 credit hours

Instructor:
Professor Erdogan Gulari
Phone: (734) 763-5941
Email: gulari@umich.edu

Scheduled:
January 3rd through April 15th, 2008

For more information:
U-M Contact: Susan Hamlin
ChE Graduate Program
Phone: (734) 763-1148
Email: hamlins@umich.edu
http://www.engin.umich.edu/dept/cheme/

Dow Contact: Dr. Ray Wright
Phone: (989) 638-1334

Textbooks:
"Analysis of Transport Phenomena" by William M. Deen, Oxford University Press

Description:
In this course we will use a unified approach to analyze heat and mass transfer problems of chemical engineering. We will learn the integral control volume and the differential shell balance approach to formulating the basic conservation equations. We will also learn how to use scaling and dedimensionalization techniques to simplify differential equations and identify and dominant contributions to transport. We will learn Finite Fourier Transform method as a new and more efficient method to solve differential equations having homogeneous boundary conditions. Methods of solving heat and mass transfer in involving convective transport will be developed for free and forced convection. If time permits, multi component heat and mass transfer will also be discussed.

Fee:
Tuition depends on residency status; please contact Susan Hamlin. If you are a new student, a Residency application is required. Tuition is billed and due at the end of the first month in term.

Registration
Deadline: January 2, 2008
Register online in Section 541 (with U-M uniqname and password) at wolverineaccess.umich.edu

For New Students:
Application Process:
Deadline: 11/01/07. Apply to the Rackham Graduate School online at http://apply.embark.com/grad/umich/rackham. If you are interested in a Master's degree through this program, use code 00115, on the application. If you are not interested in the Master's degree, use code, 01277. The application deadline is November 1 for Winter and June 1 for Fall term courses. For degree-seeking applicants, we require the application, statement of purpose, personal statement, two letters of recommendation, transcripts, and GRE scores.