## Syllabus ME 3760 Diffusion and Kinetics

# Spring 2020 Wright State University Department of Mechanical and Materials Engineering

**Instructor:** Dr. Nikolai V. Priezjev

430 RC, Phone: 775-3214, <u>nikolai.priezjev@wright.edu</u> Monday and Wednesday, 7:40 pm - 9:00 pm, Russ 302 Office Hours: MW; 5:00-6:00 pm, or by appointment

**Text:** Phase transformations in metals and alloys (Third Edition),

By: Porter, Easterling, and Sherif (CRC Press, 2009)

#### **Course Contents Include:**

- -- Microstructure and Thermodynamics
- -- Diffusion
- -- Interfaces and Microstructure
- -- Solidification
- -- Overall Transformation Kinetics-TTT diagrams

**Grading:** Homework 20%, Term paper: 10%, Midterm Exam: 35%, Final Exam: 35% (Final exam is not accumulative)

#### Attendance is required

Midterm Exam: to be determined

Final Exam: Wednesday, April 29, 2020 time: 8:00 p.m. - 10:00 p.m.

### http://www.wright.edu/raiderconnect/registration/exam-schedules#Spr2020

- Exams will be closed book/notes; only one side of a letter-size equation sheet is allowed.
- Term paper will be on a recent topic related to the course material. The topic is suggested by the student and approved by the instructor. A hard copy report and short oral presentation will be due on the last day of class.
- Students are expected to attend all lectures. If absent, it is the student's responsibility to catch up the material covered. No late exams/make-ups or quizzes will be allowed except in case of verifiable emergency.