PURDUE UNIVERSITY
REQUEST FOR ADDITION, DELETION,
OR REVISION OF A COURSE

SCHOOL DOCUMENT NO. 58-00

GRADUATE COUNCIL DOCUMENT NO. 01-27c

DEPARTMENT _Mechanical Engineering_   DATE SUBMITTED 10/24/01   DATE EFFECTIVE Spring 2003

INSTRUCTIONS: Please check the items below which describe the purpose of this request.

PURPOSE

1. Deletion of a course	8. Change in semesters offered
X 2. New course with supporting documents	9. Change in course credit/type
3. Add existing course offered at another campus	10. Change in course attributes
4. Change in course number at same level	11. Change in instructional hours
5. Downgrading of course level	12. Change in prerequisites
6. Upgrading of course level	13. Change in description of course content
7. Change in course title	14. Transfer of course from one dept. to another

EXISTING:

Subject Abbreviation
Course Number

PROPOSED:

Subject Abbreviation   ME
Course Number   680

Proposed Title Bifurcations and Chaos
Variable Title   Yes ☐   No ☒

Abbreviated Title Bifurcations and Chaos
Abbreviated title will be entered by the Office of the Registrar if omitted.   (22 CHARACTERS ONLY)

SEMESTERS OFFERED

Check All That Apply.

Summer	Fall	Ag Winter	Spring
☐	☐	☐	☒

CROSS LISTED COURSES

CREDIT TYPE
1. Fixed Credit: Cr. Hrs. 3
2. Variable Credit Range:
   Minimum Cr. Hrs
   (Check One) To ☐ Or ☐
   Maximum Cr. Hrs.
3. Equivalent Credit: Yes ☐ No ☒
4. Thesis Credit: Yes ☐ No ☒

COURSE ATTRIBUTES: Check All That Apply.
1. Pass/Not Pass Only
2. Repeatable for Credit   ☒
3. Available for Credit by Examination
4. Designator Required
5. Special Fees
6. Approval Required for Enrollment
   Department
   Instructor

Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE	Instructional Type	Class Hours	FTE
Primary	3		Auto-tutorial			Thesis		
Secondary			Ind. Study			Observation		
Laboratory			Clinic			Matls Based		
Lab. Prep.			Experiential					

CAMPUS(ES) INVOLVED

Calumet	
Fort Wayne	
Indianapolis	
North Central	
West Lafayette	X
Off Campus	

Prerequisite:

COURSE DESCRIPTION (PREREQUISITES INCLUDED): ME 580 or consent of the instructor. Basic concepts in stability of systems, nonlinear dynamical systems, and bifurcation theory. Algebraic and geometric techniques for local bifurcation analysis. Models governed by difference, ordinary, and partial differential equations. Examples from mechanical, structural, chemical, and electrical systems. Models of chaotic behavior. Techniques for prediction of chaos. Routes to chaos. Professor Bajaj. (Offered in alternate years.)
(May be repeated for credit.)

Calumet Undergrad Curriculum Committee	Date	Calumet Department Head	Date	Calumet School Dean	Date
Fort Wayne Department Head	Date	Fort Wayne School Dean	Date	Fort Wayne Chancellor Appr.for Faculty C.D.Sutton,Chair P. Sutton #954 11/14/01	Date
Indianapolis Department Head	Date	Indianapolis School Dean	Date	Undergrad Curriculum Committee	Date
				APPROVED 2/21/02	
North Central Department Head 10/24/01	Date	North Central Vice Chancellor 13 Nov 01	Date	Date Approved by Graduate Council Marilyn D. Geist 4/5/02	Date
West Lafayette Department Head 2/21/02	Date	West Lafayette School Dean	Date	Graduate Council Secretary Debra Sheets 4/25/02	Date
Graduate Area Committee Convener	Date	Graduate Dean	Date	West Lafayette Registrar	Date

OFFICE OF THE REGISTRAR