TO:

The Engineering Faculty

FROM:

The Faculty of the School of Materials Engineering

DATE:

October 14, 2013

RE:

Prerequisite Change for MSE 37000

The faculty of the School of Materials Engineering has approved the following change to the prerequisites for MSE 37000. This action is now submitted to the Engineering Faculty with a recommendation for approval.

From:

MSE 37000 Electrical, Optical, Magnetic Properties of Materials

Sem. 1. Class 3, Cr. 3.

Prerequisites: MSE 23000, and PHYS 24100.

Catalog Description: An introductory course to provide basic background on the behavior of materials; electronic and ionic conduction, electronic processes in semiconductors, dielectric, optical, and magnetic properties, and superconductivity; emphasis is on the relation between the properties and the structural aspects of materials.

To:

MSE 37000 Electrical, Optical, Magnetic Properties of Materials

Sem. 1. Class 3, Cr. 3.

Prerequisites: MSE 23000, MSE 27000, and PHYS 24100.

Catalog Description: An introductory course to provide basic background on the behavior of materials; electronic and ionic conduction, electronic processes in semiconductors, dielectric, optical, and magnetic properties, and superconductivity; emphasis is on the relation between the properties and the structural aspects of materials.

Reason:

MSE 27000 (Atomistic Materials Science) was a new course (EFD 46-07) introduced as part of the 2008 MSE curriculum revision (EFD 50-07). The content of MSE 27000 is now assumed in MSE 37000. In fact, MSE 27000 has been listed as a prerequisite on internal MSE documents since 2008. The purpose of this document is to formalize this prerequisite.

APPROVED FOR THE FACULTY
OF THE SCHOOLS OF ENGINEERING
BY THE ENGINEERING
CURRICULUM COMMITTEE

ECC Minutes

#4 11-8-13

Date

Chairman ECC

David F. Bahr, Professor and Head School of Materials Engineering

Opris Bre

MSE 37000 EFD 8-14

EPRATMENT School of Matricials Engineering FERCIVES ESSION Fell 2014 1. New course with supporting documents 1. New course with supporting documents 2. Add endiring outers either campus 3. Experiment accourse elevel at another campus 3. Experiment accourse elevel at another campus 4. Change in course experiment head signature only) 1. Change in experiment head signature only) 1.	Office of the Registrar	PURDUE UNIVERSITY REQUEST FOR ADDITION, EXPIRATION,	. 1n	1510	Print Form
INSTRUCTIONS: Please check the literal below which describe the purpose of this request. I. New course with supporting documents I. Obarge in course attitudes (department head algosayare only)	-		IRSE LU	170	
1. New course with supporting documents 7. Charge in course attributes (department head signature only)	DEPARTMENT School of Materials Engineering	,	Fall 2014		
1. New course with supporting documents 7. Charge in course attributes (department head signature only)	INSTRUCTIONS: Please check the items below	which describe the purpose of this request.			
2. Acid existing course offered at another campus 9. Charge in security course of the course campus 9. Charge in course acceptable 9. Charge in course accept			oo in course a	tributes (denartmen	of head signature only)
A. Change in course number S. Change in course side 11. Change in course requellate 12. Transfer from one department to snother 12. Transfer from one department to snother 12. Transfer from one department to snother 13. Change is not snother 13. Transfer from one department to snother 13. Transfer from one department 13. Transfer from one depa		L · · Olian			it flead signature orny)
S. Change in course tille	3. Expiration of a course	<u> </u>	-		
Course Number	r-1 ,		-	•	
Subject Abbreviation Subject Abbreviation MSE Course Number Cou		<u> </u>	_		
Subject Abbreviation Subject Abbreviation Subject Abbreviation Course Number Course Number Course Number Course Number Abbreviated tille will be entered by the Office of the Registrar if omitted, up cannot present in the Statewide Fix Veryne Abbreviated tille will be entered by the Office of the Registrar if omitted, up cannot present in the Statewide Fix Veryne Abbreviated tille will be entered by the Office of the Registrar if omitted, up cannot present in the Statewide Fix Veryne CRUIT TYPE I Passifict Pass Only 1. Passifict Pass Only 2. Saltisfactory Unsaltstactory Only 3. Registration Approved Type Department privilege Instructor Abstract Credit: Yes No 1. Passifict Pass Only 3. Registration of the Registrar if omitted, up cannot present in the State of the Registrar if omitted in the Registrar if omitted	PROPOSED:	EXISTING:			
Course Number 37000	Subject Abbreviation	Subject Abbreviation MSE			
Long Title Electrical, Optical, Magnetic Properties of Materials Short Title Abbrevisted title will be entered by the Office of the Registrar if omitted, go crisinant remainded, go crisinant remai	Course Number	Course Number 37000			
Short Title Abbreviated file will be entered by the Office of the Registrar if omitted, go cxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	Long Title Electrical, Optical, Magnetic Propert	ies of Materials		Calumet	N. Central
Abbrevisted title will be entered by the Office of the Registrar if omitted, go churuncters out; CREDIT TYPE LiFixed Credit: Cr. Hrs. LiPixed Cre	Short Title	A SECTION OF THE SECT		Ft. Wayne	
CREDIT TYPE CREDIT TYPE COURSE ATTRIBUTES: Check All That Apply 1. Pass/Not Pass Orly 2. Variable Credit Range. Minimum Cr. Hris. 2. Variable Credit Range. Minimum Cr. Hris. 3. Registation Approval Type Department Instructor I	Abbreviated title will be entered	by the Office of the Registrar if omitted. (30 CHARACTERS OF	NLY)	Indianapolis	
F.Fixed Credit: Cr. Hris.				Il That Apply	
Maximum Cr. His Check One) To or or Maximum Cr. His Maximum Cr. His. AEquivalent Credit: Yes or No or Carell by Examination ScheduleType Minutes Per Mig Week Meek Meek Meek Meek Meek Meek Meek	1.Fixed Credit: Cr. Hrs.	A GO TO THE PROPERTY OF THE PR			<u></u>
Maximum Repeatable Credit: 4. Credit by Examination S. Honors	Minimum Cr. Hrs		Depa	rtment	Instructor
A Credit by Examination S. Feet Coop Lab Rete Request 10. Off Campus Experience Include comment to explain fee 10. Off Campus Experience Include comment to explain fee 10. Off Campus Experience Include comment to explain fee 10. Off Campus Experience Include comment to explain fee 10. Off Campus Experience Include comment to explain fee Include comment to explain f	(Check One) To Or	<u> </u>			
S. Feest Coop Lab Rate Request 10. Off Campus Experience Cooking		•		Privilege	片
Lecture Recitation Per Milg Week Offered Allocated Cross-Listed Courses Per Milg Week Offered Allocated Cross-Listed Courses Course Cross-Course Cross-Course Course Cr	3.Equivalent Credit: Yes [] No []			=	ä
Recitation Presentation Laboratory Lab Prep Studio Distance Clinic Experiential Research Ind. Study Prerquisities-MSE-29096, MSE 27000, and PHYS Z4TITO. LAM COURSE LEARNING OUTCOMES: Calumet Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date North Captral Faculty Senate Chair Date Vice Chapsellor of Acadegic Affairs With Captral Faculty Senate Chair Date Vice Chapsellor of Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Date Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Vice Chapsellor for Acadegic Affairs Aman Agriculty Senate Chair Date Aman Agriculty Senate Chair Date	ScheduleType Minutes Meetings Per Per Mtg Week				Cross-Listed Courses
Presentation Laboratory Laboratory Laboratory Laboratory Laboratory Laboratory Studio Distance Cilinic Experiential Experiential Experiential Experiential Research Ind. Study Pract/Observ COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): April Prerequisites: MSE 23000, and PHYS 24100. LAM Prerequisites: MSE 23000, and PHYS 24100. LAM Prerequisites: MSE 23000, and PHYS 24100. LAM Prerequisites: MSE 23000, and PHYS 24100. Limited Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Vice Chippellis Fortudaying Again Alia [13] Wice Chippellis For padaging Again Alia [13] Alia	Lecture				
Lab Prep Stidlo Stidlo Stidlo Starce Clinic Experiential Research Ind. Study Pract/Diserv COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): LAM COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): LAM COURSE LEARNING OUTCOMES: Calumet Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Date Indiana	Presentation				
Stidio Distance Cibra	Laboratory				
Distance Clinic Experiential Research Ind. Study Prerequisites: MSE 23000, MSE 27000, and PHYS 24T00. LAW COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): ACAL Prerequisites: MSE 23000, MSE 27000, and PHYS 24T00. LAW COURSE LEARNING OUTCOMES: Calumet Department Head Date Catumet School Dean Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date North Capital Faculty Sanate Chair Date D					
Research Indianapolis Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Vice Chigoeellor for Scraderup Affairs Wice Chigoeellor for Scrad	Distance				
Résearch Ind. Study Pract/Observ COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): Add Prerequisites: MSE 23999, MSE 27000, and PHYS 24100. LAM COURSE LEARNING OUTCOMES: Calumet Department Head Date Calumet Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date Vice Chiappellor for Academy Affairs Date With Captral Faculty Senate Chair Date Vice Chiappellor for Academy Affairs Date When Date Date Vice Chiappellor for Academy Affairs Date Date Vice Chiappellor for Academy Affairs Date Date Date Vice Chiappellor for Academy Affairs Date Date Vice Chiappellor for Academy Affairs Date	Clinic				
Ind. Study Pract/Observ COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): AUGUST Prerequisites: MSE 23000, MSE 27000, and PHYS 24100. LAW COURSE LEARNING OUTCOMES: Calumet Department Head Date Fort Wayne Department Head Date Fort Wayre School Dean Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptral Faculty Senate Citair Date Vice Chappeellor for Academia Affairs Date Under School Dean Date Vice Chappeellor for Academia Affairs Date Under School Dean Date Vice Chappeellor for Academia Affairs Date Under School Dean Date Vice Chappeellor for Academia Affairs Date Under School Dean Date Vice Chappeellor for Academia Affairs Date Under School Dean Date Vice Chappeellor for Academia Affairs Date Under School Dean Date					
COURSE DESCRIPTION (INCLUDE REQUISITES/RESTRICTIONS): AUAU Prerequisites: MSE 29999, MSE 27000, and PHYS 24100. LAWU COURSE LEARNING OUTCOMES: Calumet Department Head Date Catumet School Dean Date Fort Wayrie School Dean Indianapolis Department Head Date Indianapolis Department Head Date North Coptral Faculty Senste Chair. Date Vice Chaptell of recadepto Affairs A 12 113 A A 12 113	Ind. Study				
Prerequisites: MSE 23099, MSE 27000,- and PHYS 24100. LAM COURSE LEARNING OUTCOMES: Calumet Department Head Date Calumet School Dean Date Fort Wayne Department Head Date Fort Wayne School Dean Date Indianapolis Department Head Date Indianapolis School Dean Date West Chapcellor for Academic Affairs Manna Date West Chapcellor for Academic Affairs Manna Date	Pract/Observ				
Prerequisites: MSE 23000, MSE 27000, and PHYS 24100. LAMM COURSE LEARNING OUTCOMES: Calumet Department Head Date Calumet School Dean Date Fort Wayne Department Head Date Fort Wayne School Dean Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptra Faculty Senate Chair. Date Vice Chapcellor for Academic Affairs Date Manne Date Date Manne Date Date Michael Date North Ceptra Faculty Senate Chair.		i/RESTRICTIONS):			
Calumet Department Head Date Calumet School Dean Date Fort Wayne Department Head Date Fort Wayne School Dean Date Indianapolis Department Head Date Indianapolis School Dean Date North Capital Faculty Senate Chair. Date Vice Chapcellor for Academy Affairs Date When Research Date Date Date Date Date Date Date Date		\$ 24100.			
Calumet Department Head Date Calumet School Dean Date Fort Wayne Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date North Central Faculty Senate Chair Date Vice Chapcellor for Academy Arrain Machan Ma	LAM				
Calumet Department Head Date Calumet School Dean Date Fort Wayne Department Head Date Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis Department Head Date North Central Faculty Senate Chair Date Vice Chapcellor for Academy Arrain Machan Ma	*COLIRSE LEARNING OUTCOMES:		······································		
Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academia Affaira URDAN 3 AMACA HARMAN AFAIRA Date	OUNGE LEARNING OUTOOMES.				
Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academia Affaira URDAN 3 AMACA HARMAN AFAIRA Date					
Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academia Affaira URDAN 3 AMAGEMAN 124 Date Date Vice Chapcellor for Academia Affaira URDAN 3 AMAGEMAN 244 Date Date Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academia Affaira URDAN 3 Date Date					
Fort Wayne Department Head Date Indianapolis Department Head Date Indianapolis School Dean Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academia Affaira URDAN 3 AMACA HARMAN AFAIRA Date					
Indianapolis Department Head Date Indianapolis School Dean. Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academic Affairs Date URacky 3 August 114 Date Date	Calumet Department Head Date	Calumet School Dean Date			
Indianapolis Department Head Date Indianapolis School Dean. Date North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academic Affairs Date URacky 3 August 114 Date Date					
North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academic Affairs Date Limbal 9 (18) 3 (18) 3 (18) 3 (18) 3 (18) 3 (18) 3 (18) 4 (Fort Wayne Department Head Date	Fort Wayne School Dean Date			
North Ceptral Faculty Senate Chair Date Vice Chapcellor for Academic Affairs Date Limbal 9 (18) 3 (18) 3 (18) 3 (18) 3 (18) 3 (18) 3 (18) 4 (
Charles 1/2/13 Marshaf Tettan 1/20/23 Sand Wehall 12/2/1	Indianapolis Department Head Date Date	INCIBIREDOIS SCROOI DEBT: Date	ı		
Charles 1/2/13 Marshaf Tettan 1/20/23 Sand Wehall 12/2/1	North Central Faculty Senate Chair. Deta	Vice Ciringellor for Academic Affairs	_ /	. 1.	01 11 .
West Lafayette Department Head Date West Lafayette College/School Dean Date West Lafayette Registrar Date	Kan 2 Alisto	Man 11/19 11/	ב נכל חבו	Mrsse	Jehahlu 121
	West Lafayette Department Head Date	West Lafayette College/School Dean Oate	West	Lafayelte Registrar	Date

OFFICE OF THE REGISTRAR