15-320. UWUCC: App 9/1/15 Senate: App 10/6/16

New Course Proposal Template

Steps to the approval process:

- 1. Complete the applicable template(s) and email them to the departmental or program curriculum committee chair.
- 2. The curriculum chair emails the proposal to the curriculum committee, then to the department/program faculty for a vote and finally to the department/program chair.
- 3. The department/program chair emails the proposal to curriculum-approval@iup.edu; this email will also serve as an electronic signature.
- 4. Curriculum committee staff will log the proposal, forward it to the appropriate dean's office(s) for review within 14 days and post it on the X Drive for review by all IUP faculty and administrators. Following the dean's review the proposal goes to the UWUCC/UWGC and the Senate.
- 5. Questions? Email curriculum-approval@iup.edu.

Contact	Dr.Laura Helmrich Rhodes	Email	lhrhodes@iup.edu
Person:		Address:	
Proposing	Safety Sciences	Phone:	724-357-3017
Depart/Unit:	(9)		

Course	See the Registrar's list of Unavailable course numbers at http://www.nup.edu/WorkArea linkit.aspx2LinkIdentifier_id&ItemIID_129323					
Prefix/Number	SAFE 104					
Course Title	Introduction to Safety in the Natural Gas Industry					
	Dual Listed Courses listed at two levels, such as undergraduate and graduate, masters and doctoral, etc. Cross Listed Course has more than one prefix such as GEOG RGPL 233.					
Dual/Cross Listed	☐ Yes ☐ No					
	If yes with: Click here to enter text. APR 2 9 2015					
	(UG) Class Hours - 3					
Number of Credits	(UG) Lab Hours - 0					
	Credits - 3					
Prerequisite(s)	none					
Corequisite(s)	This means that another course must be taken in the same semester as the proposed course none					
Additional	☐ Liberal Studies (please also complete Template C)					
Information						
(Check all that apply. Note: Additional	☐ Teacher Education (Is it Step 1 a prerequisite or is it part of the Professional Education Sequence					
documentation will be	If so please also complete Template D)					
required)	☑ Distance Education (Please also complete Template E)					
	Are you recommending a class size: ☐ Yes ☐ No Number: Click here to enter text.					
	If yes: (check one of the following reasons and provide a narrative explanation)					
Recommended	☐ Pedagogical ☐ Physical limitation of classroom					
Class Size (optional)	☐ Accreditation body standards/recommendations					
(provide justification)						
	Other					
	Explanation (required): Click here to enter text.					
	Guidelines: Do not include pre co-requisite information here. The registrar prefers a concise description of course content.					
	beginning with an active verb.					
Catalog Description	Introduces the student to safety and health issues in the natural gas industry through the					
	study of historical events and the changes that resulted. Students gain an understanding					

	compliance and workers' compensation, accident investigation, occupational health				
	hazards, emergency response, ergonomics, fleet safety, ethics, and safety program success measurement. Case studies and small group activities prepare students for further in-depth study of these topics and their roles as safety and health professionals.				
	Students completing this course will be able to:				
Student Learning Outcomes (These should be measurable, appropriate to the course level, and phrased in terms of student achievement, not instructional or content outcomes) If dual listed, indicate additional learning objectives for the higher level course	 A. Describe the history of safety and health in the natural gas industry and the events resulting in safety and health legislation. B. Define the major hazards associated with each step of natural gas procurement, development and transport. C. Describe established methods used for recognizing, evaluating and controlling occupational health exposures and risk in the natural gas industry. D. Explain the basic principles of emergency preparedness and response including identifying pertinent standards and fire hazards/controls unique to the natural gas industry. E. Describe the basic program elements and implementation requirements for an effective fleet safety program. F. Explain how accident investigation strategies can determine root causes of workplace accidents in the various stages of natural gas procurement, development and transport G. Apply reporting, recording and accident investigation strategies to the various stages of natural gas procurement, development, and transport. 				
	A. Status of Worker Protection in Natural Gas Procurement, Development and Transport (5 Hours				
Brief Course Outline:	 History of Occupational Safety and Health in the natural gas industry Case studies of large losses Global disasters and the legislation that followed Other important legislation and safety standards Construction Safety Act OSH Act and OSHA Recordkeeping American Petroleum Institute Standards EPA and state regulations (e.g., PA DEP Chapter 78) 				
sufficient detail to comminicate the course content to faculty across campus. It is not necessary to include specific readings, calendar, or	B. Basics of the Natural Gas Procurement, Development and Transport Process 1. Steps to finding gas (4 Hours)				
assignments.	 Seismic Landowners Permitting Steps to preparing site for gas extraction 				
	 3. Extraction 4. Production (well site production, compression, pipeline) 5. Review of basic hazards of steps 				
	 Lease construction Drilling Workover/Well Servicing 				

Wireline o Snubbing o Coiled Tubing Production o Well Site o Compression o Pipeline 6. Current safety, health and environmental issues in natural gas extraction industry C. **Basic Hazard Identification Techniques** (5 Hours) Inspections 1. Audits 2. 3. Job safety analysis 4. Haz Op studies 5. Current business applications of hazard identification (data management tasks) D. Managing Workers' Compensation in Various States (4 Hours) 1. Legislation 2. Definition 3. Coverage Program elements 4. 5. Cost containment strategies 6. Professional liability under various states' Workers' Compensation Acts **F.**. **Accident Investigation** (5 Hours) Accident causation theories 1. 2. Modern strategies for accident investigations Step-by-step conducting of an effective accident investigation 3. Preventing recurrence through meaningful recommendations and 4. implementation 5. Using accident Statistics and software packages to support safety program efforts Handling catastrophic loss at the personal level for all stakeholders 6. F. **Environmental Safety and Industrial Hygiene** (6 Hours) 1. Recognizing occupational health exposures 2. Evaluating and controlling health hazards 3. Managing environmental risk 4. Legislation overview 5. Current issues in the natural gas industry G. Fire and Emergency Response (4 Hours) Principles of fire protection 1.

				zing fire hazards, hazardous loc	ations, and their contr	rols
				standards	ulannina vagulationa	
		4.	Local, re	gional and Federal emergency	planning regulations	
	H. Fleet Safe		afety			(3 Hours)
				fexposure		
				ogram elements and implement		
				election, development and contra	rol	
				tive maintenance		
		5.	Recordke	eeping		
	I.	Ergono	mics			(2 Hours)
		1.	Fundame	entals of human performance		
		2.	Common	ergonomic hazards in natural	gas industry	
				nalysis and engineering contro	ls	
		4.	Current i	ssues in ergonomic protection		
	J.	Manag	ing the S	Safety Functions		(4 Hours)
		1.	Principle	s of fire protection		
			Codes of			
		3.		he job done (setting goals, assi		
				bility and authority, safety prog	gram maintenance, bel	havior based
			safety ini			
		4.	Maintain	ing priorities (safety metrics, s	tatistics, convincing o	thers)
	K.	Culmir	nating A	ctivity (finals week)		(2 Hours)
			Dati	ionale for Proposal		al-nr-tail
A MARKET CONTRACTOR OF THE STATE OF THE STAT	In resi	nonse to gro		nasis on natural gas procurement, dev	elopment and transport in	the US, a
Why is this course being proposed?	establ course	orative effor ished to offer will be a pa	rt with the er a Shale C art of that c	Geosciences and Geography and Reg Gas Interdisciplinary Certificate. This certificate program, in addition to bein commental (SHE) Applied Sciences pr	tional Planning Department course and the proposed S ng a free elective for stude	its has been SAFE 204
	□м	ajor Requir	rement	☐ Minor Requirement	☐ Core Requirem	
How does it fit into					Business Ec	
the departmental	Re	equired Ele	ctive	☐ Liberal Studies		
curriculum? (Check all that apply)	☑ Other - Part of proposed interdisciplinary shale gas certificate program.					
Is a similar class	Yes					
offered in other departments?	Please provide comment: Click here to enter text.					
Does it serve the	⊠ No					
college/university	Please provide comment: Part of the proposed shale gas interdisciplinary certificate program which students from other IUP departments as well as outside the University may elect to take.			cate program		
above and beyond the						
role it serves in the						
department?	1					

Template A

	☐ Course Designed for Majors (☐ Required ☐ Not Required)				
	☐ Course Designed for Minor	☑ Departmental Elective			
Who is the target audience for the course?	☐ Restricted to Majors/Minors				
	□ Liberal Studies				
	☑ Other - Part of the proposed shale gas multidiscipline certificate program				
	A. What are the implications for other departments (For example, overlap of content with other disciplines, requirements for other programs)?				
	Students in other departments may elect to take this course as part of gaining a shale gas interdisciplinary certificate or as a matter of personal interest.				
Implications for other departments	D. H				
	B. How have you addressed this with other department(s) involved? What was the outcome of that attempt? (Attach documents as appropriate)				
	This is a collaborative effort with Geosciences and Geography and Regional Planning Departments to offer an interdisciplinary certificate program in shale gas. Drafts of the course have been shared with each department via Department Chairs.				
	⊠ Yes				
Are the resources	□ No				
adequate (i.e. faculty, space, equipment,	Please provide comment: Faculty complement who have historically taught safety introductory courses (SAFE 100, SAFE 101) will be assigned to teach SAFE 104. SAFE				
laboratory supplies, library materials,	100 and SAFE 101 will be taught primarily by graduate assistants. In addition, this				
travel funds, etc.)?	course could be taught in the summer and winter terms via distance education, and				
	complement is already available during those terms to teach this course. It is anticipated that this course will be offered annually in either the fall or spring terms.				
For Dean's Revie		<i>y</i>			
Are resources	available/sufficient for this course?	Yes □ No □ NA			
Is the proposa	• Is the proposal congruent with college mission? ☐ Yes ☐ No ☐ NA				
Has the proposer attempted to resolve potential conflicts with other academic units? ☐ Yes ☐ No ☐ NA					
Comments:					