



# Safety , Health, and Environmental Applied Sciences, BS

**Department:**

**Safety Sciences**

**College:**

**Health and Human Services**

**Website:**

<https://www.iup.edu/safetysciences/undergrad/majors/safety-health-environmental-applied-sciences-bs/>

**Contact Information:**

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**Accreditation:**

Applied and Natural Science Accreditation Commission (ANSAC) of ABET



**Career Opportunities:** Occupational Health and Safety Specialists job projections predicted by the U.S. Bureau of Labor Statistics from 2016-2026 estimate job growth at 8%, as fast as average.

The median annual wage for occupational health and safety specialists was \$73,020 in May 2018.

91% of safety and health professionals consider their jobs "very stable or relatively stable" by Safety+Health Magazine.

Safety professionals can work in a variety of settings including manufacturing, insurance, healthcare, government, construction, oil & gas, transportation, consulting, and the service industry.

Safety professionals can specialize in areas including industrial hygiene, ergonomics, systems safety, and environmental.

**Program Features:**

Our program is nationally recognized. The Safety Sciences Department hosts an annual Career Fair to help students secure internships, full-time employment as well as summer work experiences (co-ops). The PA OSHA Consultation program is managed through our department and employs faculty members across the state. The Department coordinates an annual safety conference with the W. PA American Society of Safety Professionals in order to help students network with safety professionals and enhance their educational experience. Students in our program have regularly been leading recipients of ASSP Foundation scholarships, and students regularly travel to national conferences to receive these scholarship awards and display their research. Students are eligible to receive the Graduate Safety Practitioner (GSP) designation and Associate Safety and Health Manager (ASHM) certificate upon graduation. Students are also eligible to receive the OSHA 30-hour card for General Industry and 10-hour card for Construction.

**Student Organizations:**

We encourage all SHE Applied Sciences students to become members of the student section of the American Society of Safety Professionals (ASSP), making them eligible for ASSP Foundation scholarships. They regularly participate in community service activities, establish field trips, and some may conduct research work, all activities that provide them experiences that will improve their resume. Eligible students are also encouraged to join Rho Sigma Kappa (RSK), the Safety Sciences Honor Society. Students are also encouraged to join the Ladies of Safety, an organization focusing on helping women become successful in the safety field.

**Experiential Learning:**

Experiential learning is an important aspect of education. In the past, our students have enjoyed internships or co-ops with some of the following organizations: General Motors, Alcoa, PPG, Tesla, Honda, Anheuser Busch, Amazon, American Eagle, L'Oréal, NASA, Granite Construction, Chevron, Marathon, Valero, and the American Red Cross.



# Safety, Health, and Environmental Applied Sciences, BS

Department: **Safety Sciences**  
 College: **Health and Human Services**  
 Degree: **Bachelor of Science**  
 Calendar Year: **2019-20**  
 Website: <https://www.iup.edu/safetysciences/undergrad/majors/safety-health-environmental-applied-sciences-bs/>

**Program Description:** Safety, Health, and Environmental Applied Sciences prepares students for creating safe work environments by preventing workplace fatalities, injuries and illnesses. They adhere to regulations on safety, health, and the environment. This is an interdisciplinary profession where students can work in a wide array of industries including manufacturing, insurance, construction, oil & gas, consulting, healthcare, government, transportation, distribution, and the service industry. Their work may involve them in areas such as emergency preparedness/disaster planning, fire safety, industrial hygiene, ergonomics, security, and systems safety. Safety professionals may use a variety of skills including business & management skills, communication skills, as well as knowledge in chemistry, physics, & biology.

<b>Freshman Year:</b>		<b>Fall</b>	<b>Grade</b>	<b>Spring</b>	<b>Grade</b>		
SAFE 101	Intro Occup Safety & Health	3cr	_____	SAFE 111	Prin of Safety I General Industry 3cr	_____	
MATH 105	College Algebra	3cr	_____	HIST	LS Requirement 196, 197, 198	3cr	_____
CHEM 101	College Chem I	4cr	_____	CHEM 102	College Chem II	4cr	_____
ENGL 101	Composition I	3cr	_____	WELLNESS (LS)	LS Requirement - Wellness	3cr	_____
PHIL/RLST	LS Requirement -Phil or Rel Study	3cr	_____	PSYCH 101	General Psychology	3cr	_____
		<b>Total 16cr</b>			<b>Total 16cr</b>		
<b>Sophomore Year:</b>		<b>Fall</b>		<b>Spring</b>			
SAFE 215	SHE Communications	3cr	_____	SAFE 211	Prin of SAFE II Construction	3cr	_____
SAFE 220	Haz Materials & Emergency Mgmt	3cr	_____	SAFE 212	Haz Prev Mgmt I	3cr	_____
BIOL 104	Human Biology	4 cr	_____	PHYS 112	Physics II	3cr	_____
PHYS 111	Physics I	3cr	_____	PHYS 122	Physics II lab	1 cr	_____
PHYS 121	Physics I lab	1 cr	_____	ENGL 202	Composition II	3 cr	_____
		<b>Total 14cr</b>		ENGL LIT	LS Requirement - English Lit	3cr	_____
					<b>Total 16cr</b>		
<b>Junior Year:</b>		<b>Fall</b>		<b>Spring</b>			
SAFE 310	ES&H Regs & Sustainability	3cr	_____	SAFE 361	Air and Water Pollution	2cr	_____
SAFE 311	Fire Protection	3cr	_____	SAFE 330	Health Hazards I	4cr	_____
SAFE 347	Ergonomics	3cr	_____	SAFE 335	Industrial & Env. Stressors	2cr	_____
BUS ELECTIVE	Business Elective 1	3cr	_____	SAFE 345	Process & System Safety	3cr	_____
MATH 217	Probability and Statistics	3cr	_____	FINE ARTS	LS Requirement - Fine Arts	3cr	_____
		<b>Total 15cr</b>			<b>Total 14cr</b>		
<b>Senior Year:</b>		<b>Fall</b>		<b>Spring</b>			
SAFE 412	Hazard Prevention Mgmt II	3cr	_____	SAFE 488	Full-time Internship (WI)	12cr	_____
SAFE 430	Health Hazards II	4cr	_____		OR		
SAFE 435	Ethics and Professionalism	1cr	_____	SAFE 493	Part-time Internship (WI)	6cr	_____
SOC SCIENCE	LS Requirement - SS Global Dimen	3cr	_____	Free Elective	Free Elective	3cr	_____
SOC SCIENCE	LS Requirement - Soc Science	3cr	_____	Free Elective	Free Elective	3cr	_____
BUS ELECTIVE	Business Elective 2	3cr	_____				
		<b>Total 17cr</b>			<b>Total 12cr</b>		
<b>Total Credits for Degree:</b>						<b>120cr</b>	

### Additional Information:

Our program is ABET accredited and nationally recognized. Students progressing through the program are eligible to receive the Graduate Safety Practitioner (GSP) designation upon graduation as well as the Associate Safety and Health Manager (ASHM) certificate. Students are also eligible to receive the OSHA 30-hour card for General Industry and the OSHA 10-hour card for Construction. Minors that will enhance their knowledge in a specific area related to safety sciences include but are not limited to: Business Administration, Human Resource Management, Regional Planning, Spanish, Effective Teamwork and Communications, Sustainability Studies, and Global Health.



# Safety, Health, and Environmental Applied Sciences

Department: **Safety Sciences**

College: **Health and Human Services**

Degree: **Bachelor of Science**

Calendar Year: **2019-20**

Website: <https://www.iup.edu/safetysciences/undergrad/majors/safety-health-environmental-applied-sciences-bs/>

**Summary of Requirements:** Safety, Health, and Environmental Applied Sciences prepares students for creating safe work environments by preventing workplace fatalities, injuries and illnesses. They adhere to regulations on safety, health, and the environment. This is an interdisciplinary profession where students can work in a wide array of industries including manufacturing, insurance, construction, oil & gas, consulting, healthcare, government, transportation, distribution, and the service industry. Their work may involve them in areas such as emergency preparedness/disaster planning, fire safety, industrial hygiene, ergonomics, security, and systems safety. Safety professionals may use a variety of skills including business & management skills, communication skills, as well as knowledge in chemistry, physics, & biology.

<b>Core/Liberal Studies Requirements:</b>				<b>Credits: 44</b>
ENGL 101	Composition I	3cr	Wellness	(1) LS Dimensions in Wellness 3cr
ENGL 202	Composition II	3cr	PSYC 101	General Psychology 3 cr
ENGL 121	Humanities Literature	3cr	MATH 105	College Algebra 3cr
MATH 217	Probability & Statistics	3cr	Fine Arts	(1) LS Fine Arts Course 3cr
PHIL/RLST	(1) Philosophy or Relig. Studies	3cr	Global & MC	Global/Multicultural Awareness 3cr
HIST	(1) HIST 196 or 197 or 198	3cr	CHEM 101	College Chem I with Lab 4cr
Social Sci	(1) Social Science	3cr	CHEM 102	College Chem II with Lab 4cr
<b>Department Requirements:</b>				<b>Credits: 12</b>
PHYS 111/112	Physics 1 with Lab	4 cr	PHYS 112/122	Physics II with Lab 4 cr
BIOL 104	Human Biology	4 cr		
<b>Safety Sciences Requirements</b>				<b>Credits: 52-58</b>
SAFE 101	Intro to Occup Sfty & Hlth	3cr	SAFE 335	Ind & Env Stressors 2cr
SAFE 111	Prin of Safety I Gnrl Ind	3cr	SAFE 345	Process & System Safety 3cr
SAFE 211	Prin of Safety II Const Ind	3cr	SAFE 347	Ergonomics 3cr
SAFE 212	Hazard Prev Mgmt I	3cr	SAFE 361	Air & Water Pollution 2cr
SAFE 215	SHE Communication	3cr	SAFE 412	Hazard Prev Mgmt II 3cr
SAFE 220	Haz Material & Emerg Mgmt	3cr	SAFE 430	Health Hazards II 4cr
SAFE 310	ES&H Regs & Sustainability	3cr	SAFE 435	Ethics & Professionalism 1cr
SAFE 311	Fire Protection	3 cr	SAFE 488	Full-time Internship OR 12cr
SAFE 330	Health Hazards I	3 cr	SAFE 493	Part-time Internship 6cr
<b>Controlled Electives (Choose 6 Credits with your advisor)</b>				<b>Credits: 6</b>
ACCT 200	Foundations of Accounting	3 cr	MGMT 311	Human Behavior in Organizations 3cr
MGMT 300	Human Resources of Mgmt	3 cr	MGMT 434	Quality Management 3cr
MGMT 310	Principles of Management	3 cr		
<b>Free Electives:</b>				<b>Credits: 0-6</b>
<b>Total Credits for Degree:</b>				<b>120</b>

### Additional Information:

Our program is nationally recognized. Obtaining a Minor in another field is an option for students. Some choices of a Minor that effectively supports the SHE in Applied Sciences degree include but are not limited to: Business Administration, Human Resource Management, Regional Planning, Spanish, Effective Teamwork and Communications, Sustainability Studies, and Global Health.