## OSHE Courses (in Red Color) that Satisfy Competencies for OSH&E BS Program

Mathematics, Science and Statistics	OSHE Courses
Transformation of the orthogonal	<b>111</b> , 112, <b>121</b> , <b>141</b> ,
	231, <b>242</b> , 251, <b>261</b> ,
Graduates demonstrate how to apply mathematical and statistical	311, 322, 323, 341,
knowledge in the safety, health, and environment field.	<b>381</b> , 382, <b>421</b> , 423,
	<b>424</b> , <b>441</b> , 442, 451,
	452, 471
Graduates demonstrate knowledge of principles in chemistry, physics, and biology as it pertains to the practice of safety, health, and environment.	<b>111</b> , <b>112</b> , 121, <b>141</b> ,
	231, <b>242</b> , 251, <b>261</b> ,
	311, 322, 323, 341,
	<b>381</b> , <b>382</b> , 421, 423,
	<b>424</b> , <b>441</b> , <b>442</b> , 451,
	<b>452</b> , 471
	<b>111</b> , <b>112</b> , <b>121</b> , 141,
Graduates demonstrate knowledge of principles in business	<b>231</b> , 242, 251, 261,
management as it pertains to the practice of safety, health, and	<b>311</b> , 322, 323, 341, 281, 282, 421, 423
environment.	381, 382, <b>421</b> , <b>423</b> , 424, 441, 442, 451,
	<b>452, 471</b>
Communications and Social Sciences	432, 471
Communications and Social Sciences	111, 112, 121, 141,
	<b>231</b> , <b>242</b> , <b>251</b> , 261,
Graduates are able to effectively express thoughts in oral and	311, <b>322</b> , 323, 341,
written communications.	<b>381</b> , <b>382</b> , <b>421</b> , <b>423</b> ,
written communications.	<b>424</b> , 441, 442, 451,
	452, <b>471</b>
	<b>111</b> , <b>112</b> , <b>121</b> , 141,
Creductes demonstrate knowledge of the techniques skills and	231, 242, 251, 261,
Graduates demonstrate knowledge of the techniques, skills, and	311, <b>322</b> , 323, 341,
modern behavioral tools necessary for the practice of safety, health, and environment.	381, <b>382</b> , <b>421</b> , <b>423</b> ,
	<b>424</b> , 441, 442, 451,
	452, 471
Graduates are able to effectively function as a part of multi- disciplinary teams that establishes goals, plan tasks, meet deadlines, and analyze risk and uncertainty.	<b>111</b> , <b>112</b> , 121, 141,
	231, <b>242</b> , 251, 261,
	311, 322, 323, 341,
	381, <b>382</b> , <b>421</b> , 423,
	<b>424</b> , 441, 442, <b>451</b> ,
	452, 471
	111, 112, 121, 141,
Graduates demonstrate knowledge of professional and ethical responsibility.	<b>231</b> , <b>242</b> , <b>251</b> , <b>261</b> , <b>211</b> , <b>322</b> , 323, 341
	311, <b>322</b> , 323, 341, <b>381</b> , <b>382</b> , <b>421</b> , <b>423</b> ,
	<b>381</b> , <b>382</b> , <b>421</b> , <b>423</b> , 424, 441, 442, 451,
	424, 441, 442, 431, 452, 471
Graduates demonstrate knowledge of contemporary issues.	<b>111, 112,</b> 121, <b>141</b> ,
	231, <b>242</b> , 251, <b>261</b> ,
	311, 322, 323, <b>341</b> ,
	511, 544, 545, <b>541</b> ,

	<b>381</b> , <b>382</b> , 421, 423,
	<b>424</b> , 441, <b>442</b> , <b>451</b> ,
	<b>452</b> , 471
Safaty Haalth and Environment Knowledge	<b>452</b> , <b>4</b> /1
Safety, Health, and Environment Knowledge	111 112 121 141
	111, 112, 121, 141,
	231, 242, 251, 261,
Graduates demonstrate knowledge of occupational safety, health, and environment fundamentals.	311, 322, 323, 341,
	381, 382, 421, 423,
	424, 441, 442, 451,
	452, 471
	111, 112, 121, 141,
	231, 242, 251, 261,
Graduates demonstrate knowledge of legal aspects of safety, health, and environmental practices.	311, 322, 323, 341,
	381, 382, 421, 423,
	<b>424</b> , 441, 442, 451,
	452, 471
	111, 112, 121, <b>141</b> ,
	231, <b>242</b> , 251, 261,
Graduates demonstrate knowledge of the interactions of physical,	311, 322, 323, <b>341</b> ,
chemical, biological, and ergonomic agents, factors, and/or	381, 382, 421, 423,
stressors on the human body.	424, <b>441</b> , <b>442</b> , 451,
	452, 471
	<b>111</b> , 112, <b>121</b> , 141,
	<b>231</b> , 242, <b>251</b> , 261,
Graduates demonstrate knowledge of the application of laws,	
regulations, standards, and codes to safety, health and	311, 322, 323, 341, <b>381 382</b> 421 422
environmental conditions.	<b>381</b> , <b>382</b> , 421, 423,
	424, 441, 442, <b>451</b> ,
	452, 471
	<b>111</b> , 112, 121, 141,
	231, 242, 251, <b>261</b> ,
Graduates demonstrate knowledge of and use principles of fire	311, 322, 323, 341,
prevention and protection in the workplace.	<b>381</b> , 382, 421, 423,
	424, 441, 442, 451,
	452, 471
	<b>111</b> , 112, 121, 141,
	231, 242, 251, 261,
Graduates demonstrate knowledge of industrial and construction	311, 322, 323, 341,
safety throughout the work processes.	381, <b>382</b> , 421, 423,
	<b>424</b> , 441, 442, 451,
	452, 471
Safety, Health, and Environment Practical Skills	
Students demonstrate how to utilize basic laboratory instrumentations associated with safety, health, and environment to develop and conduct experiments or test hypotheses, analyze and interpret data and use scientific judgment to draw conclusions.	111, 112, 121, 141,
	231, 242, 251, 261,
	311, 322, 323, <b>341</b> ,
	381, 382, 421, 423,
	424, <b>441</b> , 442, 451,
	452, 471
Graduates demonstrate how to anticipate, identify and evaluate hazardous agents, conditions, and practices.	111, 112, 121, 141,
	231, <b>242</b> , 251, 261,
	311, 322, 323, <b>341</b> ,
	511, 522, 525, 571,

	<b>381</b> , <b>382</b> , 421, 423,
	<b>424</b> , <b>441</b> , <b>442</b> , 451,
	452, 471
Students demonstrate knowledge and skills of fundamental exposure assessment and environmental sampling techniques.	<b>111</b> , <b>112</b> , 121, <b>141</b> ,
	231, <b>242</b> , 251, 261,
	311, 322, 323, <b>341</b> ,
	<b>381, 382,</b> 421, 423,
	424, 441, 442, 451,
	<b>452</b> , 471
	111, <b>112</b> , 121, <b>141</b> ,
	231, <b>242</b> , 251, <b>261</b> ,
Students demonstrate how to develop control designs, methods,	311, 322, 323, <b>341</b> ,
procedures, and programs to eliminate or mitigate safety, health,	<b>381</b> , 382, 421, 423,
and environmental hazards.	
	<b>424</b> , 441, <b>442</b> , <b>451</b> ,
	<b>452</b> , 471
Graduates demonstrate how to conduct accident/incident investigation and analysis.	<b>111</b> , 112, <b>121</b> , 141,
	231, 242, 251, 261,
	311, 322, 323, 341,
	381, 382, <b>421</b> , <b>423</b> ,
	424, 441, 442, 451,
	452, 471
Graduates demonstrate how to implement and manage effective safety, health, and environment programs.	<b>111</b> , 112, <b>121</b> , 141,
	231, 242, 251, 261,
	<b>311</b> , <b>322</b> , <b>323</b> , 341,
	381, 382, <b>421</b> , <b>423</b> ,
	<b>424</b> , 441, 442, 451,
	452, <b>471</b>
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