Occupational Health Safety and Enviroment

Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401111**
Course Title	**English for HSE**
Credit Hours	**(2)**
Theoretical Hours	**(2)**
Practical Hours	**(0)**

Brief Course Description:

- Effective communication in various situations, terminology to be used in the workplace, types of documentation required in the workplace, steps involved in writing a document, workplace documents, the role of writing and its value in the workplace

Course Objectives:

This course aims at:

1. Discuss the role of writing and its value in the workplace
2. Identify terminology to be used in the workplace
3. Identify types of documentation required in the workplace
4. Identify the steps involved in writing a document
5. Create workplace documents
6. Demonstrate effective communication in various situations

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**role of writing and its value in the workplace**	❖ importance of writing ❖ reasons for acquiring and organizing information ❖ the need for accurate directions to complete a task	
2.	**terminology to be used in the workplace**	❖ common terms used in the field of health safety and environment ❖ Use technical vocabulary to describe common industry components	
3.	**types of documentation required in the workplace**	❖ importance of documentation in relation to health, safety and environment ❖ types of HS&E documentation required in the workplace ❖ purpose and use of selected documents ❖ importance of document accuracy	
4.	**steps involved in writing a document**	❖ Identify the document's purpose ❖ basic punctuation and sentence structure ❖ Discuss how to organize the content ❖ Discuss how to edit the document ❖ tips for effective writing	
5.	**workplace documents**	❖ standard formats of HS&E documents ❖ Write a HS&E memo ❖ appropriate email and interoffice etiquette ❖ Write e-mails and faxes ❖ Demonstrate the ability to write accurate, concise directions for a given task ❖ Read short, simple text using e-mails and faxes	
6.	**effective communication in various situations**	❖ Identify listening strategies ❖ Explain appropriate rules of conduct in formal and informal meetings ❖ Discuss the reasons to hold an HS&E committee meeting ❖ Participate in an informal meeting	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- Lecture
- Help Sessions

Text Books & References:

1. Dubrin, A. J. & Geerinck, T. (2009). *Human Relations: Interpersonal Job Oriented Skills* (3rd ed). Toronto, ON. Pearson Education Canada Inc.
2. Lannon, J. M., & Klepp, D. (2009). *Technical communications* (4th ed.). Toronto, ON: Pearson Longman.

Textbook:

Occupational Health Safety and Enviroment

Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401114**
Course Title	**Introduction to HSE**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- HSE Importance & Influences, HSE Professional, Safety Culture, HSE Diploma Degree Program, Basic definitions and Terminology

Course Objectives:

This course aims at:

1. discuss HSE Importance & Influences
2. identify How to be an HSE Professional
3. discuss Safety Culture
4. demonstrate HSE Diploma Degree Program
5. discuss Basic Definitions and Terminology

\

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**HSE Importance & Influences**	❖ General view of the Jordanian and Arab world Economic (Agriculture, Industrial, Tourism, Services sectors and Oil & Gas industries, etc). ❖ Impact of HSE on Industrial sector, social affairs, tourism, community and other economic sectors. ❖ HSE economical effectiveness and role of Insurance Companies ❖ International Conventions C155 and International standards and requirements	
2.	**How to be an HSE Professional**	❖ Human Behaviour & behavioral safety ❖ HSE Professional Characteristics ❖ HSE Development path for professional	
3.	**Safety Culture**	❖ Components of an efficient Safety Culture ❖ Where do we stand for? ❖ What are you going to do to promote HSE ❖ Overview of safety issues in Jordan Labour law	
4.	**HSE Diploma Degree Program**	❖ The program importance ❖ The expected Community Safety Step change ❖ Market general view and HSE demands	
5.	**Basic Definitions and Terminology**	❖ Risk, Hazard, types of Hazard and Hazard control ❖ Industrial Hygiene ❖ Safety management System and environment management system ❖ Incidents, accidents analysis and investigations ❖ Policies and procedures. ❖ Emergency action plan and response ❖ Hot work, confined space, LOTO/TO, etc.. ❖ Elements of successful Health and safety System ❖ Hierarchy and Hazard control	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	

Teaching Methodology:

- Laboratory sessions
- Help Sessions

Text Books & References:

Textbook:

1. Stewart, J. M. (2002). Managing for a world class safety system. New York: John Wiley and Sons, Inc
2. Cayhill; Environmental Health and Safety Audits, 8th Edition
3. Kelloway E. K., Francis, L., & Montgomery, J. (2008). Management of occupational health and safety (4th ed.). Scarborough, ON: Thompson Learning
Jordan labour law

References

1. Bird, Frank E. and Germain, George L. (1996). Practical Loss Control Leadership. Revised Edition. Det Norske *Veritas Inc., Loganville, Georgia*
2. Senge, Peter (1994) The Fifth Discipline: The Art & Practice of The Learning Organization. Bantam Doubleday Dell

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401221**
Course Title	**SAFTY MANAGEMENT SYSTEM 1**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- National and international health, safety and environmental (HS&E) Legislation, components of the responsibility system rights and responsibilities of key HS&E stakeholders, principles of world class occupational health and safety systems, safety management systems

Course Objectives:

This course aims at:

1. Examine national and international health, safety and environmental (HS&E) Legislation
2. Examine the components of the responsibility system
3. Identify the rights and responsibilities of key HS&E stakeholders
4. Examine core principles of world class occupational health and safety systems
5. Examine safety management systems
6. Debate the concept of safety responsibility
7. Discuss strategies to implement a safety management program
8. Examine various elements of disability management

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**national and international health, safety and environmental (HS&E) Legislation**	❖ Examine Jordan's Labor Law as it applies to HS&E ❖ Examine Jordan's Social Security Law ❖ Review applicable national fire, building, radiation and environmental legislation ❖ Compare international H&SE legislation	
2.	**components of the responsibility system**	❖ Discuss the three essential rights for individual workers ❖ Recognize systems theory ❖ Explain the external responsibility system ❖ Discuss the internal responsibility system (IRS) or workplace responsibility system (WRS) ❖ Describe employer-employee relationships ❖ Examine the role and responsibilities of a health and safety professional. ❖ Explain the Goal of a WRS ❖ Summarize the philosophy of the WRS	
3.	**Identify the rights and responsibilities of key HS&E stakeholders**	❖ Identify the rights and responsibilities/duties of employers ❖ Identify the rights and responsibilities/duties of supervisors ❖ Identify the rights and responsibilities /duties of workers ❖ Identify the rights and responsibilities/duties of committees ❖ Identify the rights and responsibilities/duties of owners ❖ Identify the rights and responsibilities/duties of suppliers ❖ Identify the rights and responsibilities/duties of contractors ❖ Identify the rights and responsibilities/duties of labour inspectors	

4.	**Examine core principles of world class occupational health and safety systems**	❖ Define safety climate and safety culture ❖ Identify the purpose of written safety beliefs or values ❖ Examine global components of corporate safety culture ❖ Recognize components of a good learning system ❖ Examine the fundamental beliefs about safety and safety systems ❖ Recognize the specific safety practices and the beliefs that underlie them ❖ Discuss corporate culture diversity	
5.	**Examine safety management systems**	❖ Compare global safety management templates ❖ Examine the elements of global safety management systems ❖ Discuss the cost of implementing a corporate safety management system ❖ Discuss the benefits of implementing a corporate safety management system	
6.	**Debate the concept of safety responsibility**	❖ Define safety responsibility ❖ Examine the principles of safety responsibility ❖ Examine legal, moral and financial responsibilities to HS&E ❖ Define duty to care ❖ Review national and international obligations and liabilities of an OH&S professional	
7.	**Discuss strategies to implement a safety management program**	❖ Discuss phases of implementation ❖ Discuss steps to developing a safety management system ❖ Identify key personnel to assist with implementation activities ❖ Discuss communication materials and activities required for safety management system implementation ❖ Discuss a Strategy to Implement an Occupational Health and Safety Program	

8.	**Examine various elements of disability management**	❖ Discuss disability management programs ❖ Examine the elements of a disability management program ❖ Develop policy and procedure to sustain a disability management program ❖ Examine a return to work plan ❖ Examine cost/benefits of disability management program	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- ❖ Lecture
- ❖ Help Sessions

Text Books & References:

4. Stewart, J. M. (2002). Managing for a world class safety system. New York: John Wiley and Sons, Inc
5. Cayhill; Environmental Health and Safety Audits, 8th Edition
6. Kelloway E. K., Francis, L., & Montgomery, J. (2008). Management of occupational health and safety (4th ed.). Scarborough, ON: Thompson Learning

Occupational Health Safety and Enviroment

Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401223**
Course Title	**SAFTY MANAGEMENT SYSTEM 2**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- strategies to implement a safety management program, workplace inspection methods, pre-inspection planning, Elements to inspect and review , Workplace inspection, Appraise inspection results, Examine job hazard analysis, other proactive hazard identification methods

Course Objectives:

This course aims at:

1. Examine workplace inspection methods
2. Examine pre-inspection planning
3. Summarize auditor selection process
4. Analyze elements to inspect and review
5. Examine the value of safety management system audit
6. Apply elements of an audit program
7. Examine audit planning activities
8. Implement the process for conducting an audit
9. Appraise inspection results
10. Prepare the audit report
11. Propose audit follow up activities

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**workplace inspection methods**	❖ Identify workplace inspection terminology ❖ Discuss the costs of workplace injuries ❖ Compare formal and informal inspections ❖ Discuss national legislation regarding workplace inspections ❖ Discuss roles and responsibilities to workplace inspections	
2.	**pre-inspection planning**	❖ Examine required training for workplace inspectors ❖ Discuss the intervals for formal and informal inspections ❖ Examine the elements of an inspection report form ❖ Review workplace hazards ❖ Develop an inspection report form	
3.	**auditor selection process**	❖ Define personal attributes desired in an auditor ❖ Describe the knowledge and skills required to audit ❖ Determine education and work experience required to audit ❖ Establish auditor evaluation techniques	
4.	**elements to inspect and review**	❖ Examine workplace documentation to review ❖ Discuss worker concerns and interviews ❖ Discuss hazardous processes ❖ Identify housekeeping issues ❖ Participate in a formal workplace inspection	
5.	**the value of safety management system audit**	❖ Examine the concept & elements of a Safety Management System ❖ Discuss stakeholder involvement ❖ Examine loss control strategies ❖ Discuss performance measurement techniques ❖ Discuss the benefits of a Safety Management System audit	
6.	**elements of an audit program**	❖ Identify audit terminology ❖ Determine objectives and extent of the audit program ❖ Define audit program responsibilities and staffing ❖ Implement implementation procedures for the audit program	

		❖ Identify audit program monitoring methods	
7.	**audit planning activities**	❖ Determine audit objectives including scope and criteria ❖ Examine audit feasibility ❖ Construct the audit team ❖ Develop the audit plan ❖ Examine working papers	
8.	**the process for conducting an audit**	❖ Describe opening meetings ❖ Describe familiarization tours ❖ Describe team and auditee meetings ❖ Analyze documentation ❖ Perform observation tours ❖ Conduct interviews ❖ Prepare audit conclusions ❖ Describe closing meetings	
9.	**Appraise inspection results**	❖ Compare inspection results and legislated standards ❖ Discuss required hazard controls ❖ Recommend control implementation ❖ Discuss follow up methods ❖ Identify workplace communication of results ❖ Improve inspection report form	
10.	**Prepare the audit report**	❖ Determine extent of recommendations to be made ❖ Discuss liability related to recommendations ❖ Identify audit report requirements	
11.	**Propose audit follow up activities**	❖ Examine action plan requirements ❖ Determine follow up activities ❖ Present group audit presentation	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	

Teaching Methodology:

- Laboratory sessions
- Help Sessions

Text Books & References:

Textbook:

1. Dubrin, A. J. & Geerinck, T. (2008). *Human Relations: Interpersonal Job Oriented Skills* (3rd ed). Toronto, ON. Pearson Education Canada Inc
2. Kelloway , E. K., & Francis, L. (2008). *Management of Occupational Health and Safety* (4th ed.). Scarborough, ON, Canada: Thompson Learning

References

1. Basaraba, B. M. (1999). *IPT's safety first handbook: Book one.* Edmonton, ALTA, Canada: IPT Publishing and Training
2. Setting up an Occupational Health and Safety Program located at: http://www.lrws.gov.sk.ca/Default.aspx?DN=6c991c55-55f3-4c86-89af-343b37e88ce3

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401241**
Course Title	**Health Hazard and Industrial Hygiene I**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- Main principles of industrial hygiene, occupational contamination, chemical hazards, Examine biological hazards,, Ionizing and non-ionizing radiation hazards, Identify noise hazards and noise Calculations, thermal stressors, Examine respiratory protection programs, air sampling, Specific occupational disease and injury

Course Objectives:

This course aims at:

1. Identify main principles of industrial hygiene
2. Examine occupational contamination
3. Examine chemical hazards
4. Examine biological hazards
5. Identify Ionizing and non-ionizing radiation hazards
6. Identify noise hazards and noise Calculations
7. Identify thermal stressors
8. Examine respiratory protection programs
9. Examine air sampling techniques
10. Examine specific occupational disease and injury

1.

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**main principles of industrial hygiene**	❖ Identify the main industrial organizations who influence industrial hygiene ❖ Identify key principles of industrial hygiene ❖ Explain basic industrial hygiene terminology ❖ Recognize concepts behind occupational exposure limits ❖ Identify nationally accepted occupational exposure limits ❖ Perform time weighted averages and conversion calculations	
2.	**occupational contamination**	❖ Differentiate the entry routes of contamination ❖ Recognize the physical forms of contaminants ❖ Discuss human anatomy as it relates to elimination of chemical contaminants ❖ Discuss human anatomy as it relates to elimination of particulate contamination ❖ Examine contamination limits and occupational exposure limits ❖ Perform basic conversion calculations ❖ Discuss air exchange ❖ Perform basic air exchange calculations	
3.	**chemical hazards**	❖ Examine classes of toxins ❖ Identify key terminology related to chemicals and Workplace Hazardous Materials Information System (WHMIS) ❖ Identify toxicity factors ❖ Identify chemical controls ❖ Discuss safe handling procedures ❖ Examine key elements of a chemical safety program	
4.	**biological hazards**	❖ Examine the types of biological hazards ❖ Describe the host-agent relationship ❖ Discuss biological controls ❖ Examine key elements of a biological safety	

		program	
5.	**Ionizing and non-ionizing radiation hazards**	❖ Identify sources and effects of ionizing radiation ❖ Recognize controls for ionizing radiation exposure ❖ Identify controls for ionizing radiation exposure radiation ❖ Recognize controls for non-ionizing radiation ❖ Discuss exposure standards for radiation ❖ Examine key elements of a radiation safety program	
6.	**noise hazards and noise Calculations**	❖ Describe the properties of sound ❖ Discuss the anatomy of hearing and effects of noise on hearing ❖ Identify the basics of audiometric testing ❖ Examine the key elements of a hearing conservation plan ❖ Review the principles of sound level testing ❖ Review noise hazard controls ❖ Perform noise calculations ❖ Discuss decibels and noise scales ❖ Examine noise reduction ratings (NRR) and hearing protection ❖ Perform basic NRR/hearing protection calculations ❖ Discuss multiple machine noise ratings ❖ Perform basic multiple noise (dB) calculations ❖ Discuss ppm and mg/m^3 readings	
7.	**thermal stressors**	❖ Recognize heat stressors and effects on human body ❖ Identify heat stress ❖ Recognize cold stressors and effects on human body ❖ Identify controls to prevent cold stress ❖ Examine monitoring techniques for thermal stress ❖ Perform thermal calculations	

8.	**respiratory protection programs**	❖ Identify elements of respiratory protection programming ❖ Compare classes of respiratory protection ❖ Discuss respirator selection guidelines ❖ Examine fit testing protocol	
9.	**air sampling techniques**	❖ Discuss indoor air quality ❖ Discuss confined space air testing ❖ Compare air sampling methods and equipment ❖ Discuss air sampling standards and protocols ❖ Describe laboratory analysis techniques ❖ Describe laboratory analysis techniques ❖ Discuss ventilation methods ❖ Perform air sampling calculations	
10.	**specific occupational disease and injury**	❖ Examine skin diseases/injury ❖ Examine lung diseases/injury ❖ Examine eye disease/injury ❖ Discuss additional target organs disease/injury	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	

Teaching Methodology:

- Laboratory sessions
- Help Sessions

Text Books & References:

Textbook:

- Nims, D. (1999). Basics *of industrial hygiene*. (1st ed.). New York, NY: John Wiley & Sons

References

- Plog, Barbara. (2001). *Fundamentals of industrial hygiene* (5th ed.). National Safety Council
- Kelloway, E. K., & Francis, L. (2008). Management *of occupational health and safety* (4th ed.). Scarborough, ON: Thompson Learning

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401242**
Course Title	**Health Hazard & Industrial Hygiene II**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- General physical hazards, material processing hazards, fall hazards, basic electrical hazards, ergonomic hazards, basics of workplace stress, shift work, workplace violence workplace discrimination and harassment

Course Objectives:

This course aims at:

1. Identify general physical hazards
2. Examine material processing hazards
3. Examine fall hazards
4. Examine basic electrical hazards
5. Discuss ergonomic hazards
6. Discuss the basics of workplace stress
7. Examine shift work
8. Examine workplace violence
9. Examine workplace discrimination and harassment

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**general physical hazards**	❖ Recognize physical hazards ❖ Discuss effects of physical hazards ❖ Discuss workplace sources for physical hazards ❖ Discuss physical hazard training requirements	
2.	**material processing hazards**	❖ Discuss potential machine operation risks ❖ Examine specific hazards related to material processing ❖ Indicate workplace design influences ❖ Examine material processing controls ❖ Discuss implementation of process controls ❖ Examine specific training requirements for material processing	
3.	**fall hazards**	❖ Define fall and fall arrest ❖ Identify sources of fall hazards ❖ Examine hierarchy of fall hazard controls ❖ Examine personal fall arrest equipment ❖ Discuss factors influencing selection of fall protection ❖ Discuss fall arrest training	
4.	**basic electrical hazards**	❖ Discuss principles of electricity ❖ Discuss national electrical codes ❖ Identify sources of electrical hazards ❖ Examine hierarchy of electrical hazard controls ❖ Define lock out procedures and their relationship to electrical work	
5.	**ergonomic hazards**	❖ Discuss the basic causes of musculoskeletal injury ❖ Identify the progression of musculoskeletal injuries ❖ Discuss basic workplace sources of ergonomic hazards	

		❖ Identify basic computer station requirements ❖ Develop a computer station ergonomic assessment form ❖ Identify good lifting techniques	
6.	**the basics of workplace stress**	❖ Define occupational stress ❖ Outline signs and symptoms of stress ❖ Describe the impact on physical strains and injuries ❖ Discuss stress reduction strategies	
7.	**shift work**	❖ Define what shift work is ❖ Discuss the types of industry affected by shift work ❖ Discuss the safety issue arising from shift work ❖ Examine the adverse health effects of shift work ❖ Discuss workplace control methods to alleviate shift work health and safety issues	
8.	**workplace violence**	❖ Define workplace violence ❖ Identify national legislation related to violence ❖ Identify industries at high risk for violence ❖ Examine workplace security procedures ❖ Examine workplace training related to violent events ❖ Examine protocols necessary to develop violent event emergency planning ❖ Develop a violence drill plan	
9.	**workplace discrimination and harassment**	❖ Define workplace harassment ❖ Identify national legislation related to discrimination and harassment ❖ Examine harassment workplace training ❖ Examine protocols necessary to develop harassment policies and procedures ❖ Examine procedures for harassment investigations ❖ Discuss harassment investigation documentation and reporting ❖ Examine employee assistance planning for	

		post-harassment events ❖ Identify harassment events and interventions	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	

Teaching Methodology:

- Laboratory sessions
- Help Sessions

Text Books & References:

Textbook:

1. Kelloway, E. K., Francis, L. (2008) *Management of Occupational Health and Safety* (4th ed). Scarborough, ON: Thompson Learning.

References

1. Basaraba, B. M. (1999). *IPT's safety first handbook: Book one.* Edmonton, ALTA, Canada: IPT Publishing and Training

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401115**
Course Title	**Occupational Behavior and Leadership**
Credit Hours	**(2)**
Theoretical Hours	**(2)**
Practical Hours	**(0)**

Brief Course Description:

- Individual behaviour relates to performance, work related values, communication barriers to occupational health and safety, leadership and motivation relates to performance, organizational culture safety change, organizational culture safety change, Leadership skills and responsibilities for HSE person, organizational positive political skills

Course Objectives:

This course aims at:

2. Discuss how individual behaviour relates to organization performance
3. Examine work related values
4. Describe the communication barriers to occupational health and safety
5. Analyse How Motivation Relates to Performance
6. Analyze Organizational and Leadership Behaviour
7. Explain how leadership relates to performance
8. Leadership skills and responsibilities for HSE person
9. Discuss organizational culture safety change
10. Describe organizational positive political skills

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**how individual behaviour relates to organization performance**	❖ Review organization behaviour ❖ Define perception ❖ Discuss the impact of perceptual errors ❖ Define personality ❖ Recognize how personality influences behaviour ❖ Discuss the dimensions of emotional intelligence	
2.	**work related values**	❖ Examine values ❖ Compare differences in international values ❖ Examine Jordanian workplace values ❖ Discuss job satisfaction	
3.	**communication barriers to occupational health and safety**	❖ Describe the communication process ❖ Describe the barriers to communication ❖ Identify strategies to overcome communication barriers	
4.	**Analyse How Motivation Relates to Performance**	❖ Apply needs theories to explain how motivation is affected by needs ❖ Compare two process theories of motivation ❖ Apply equity theory to explain how individuals respond to rewards ❖ Describe a Safety Reward Program ❖ Review the Benefits of a Safety Reward Program ❖ Review the Drawbacks of a Safety Reward Program	
5.	**Analyze Organizational and Leadership Behaviour**	❖ Describe an organization ❖ Describe a learning organization ❖ Examine challenges in the workplace at the individual level ❖ Examine challenges in the workplace at the group level ❖ Examine challenges in the workplace at the organizational level ❖ Explain learning concepts related to a learning organization	

6.	**Explain how leadership relates to performance**	❖ Describe leadership trait theories ❖ Explain the major differences between transactional and transformational leaders ❖ Describe the ways leadership disperses Into an organization	
7.	**Leadership skills and responsibilities for HSE person**	❖ Identify and understand their own leadership style ❖ Practice methods to assess the personality types of their crew and recognize how to adapt their leadership style to be effective in the supervision of and relationship building with their crew ❖ Learn how to identify and develop their crew's informal (natural) leaders as peer mentors ❖ Understand and explain the importance of job pre - planning ❖ Know and explain why pre-planning tools of SMP, JSEA, JRA, JSA, Permit to Work etc. are essential in assessing and mitigating safety and health risks ❖ Demonstrate through role play and case studies how to effectively engage crew members in the practicing of the policies and procedures outlined in the pre-planning tools ❖ Complete the capstone scenario of managing mock SIMOPS operations to demonstrate proficiency in practicing situational awareness that incorporates each of the key learning objectives of the course.	
8.	**Discuss organizational culture safety change**	❖ Define organizational safety culture ❖ Discuss what prompts organizational safety change ❖ Describe different change models ❖ Examine resistance to change and ways to overcome ❖ Discuss contemporary issues in health and safety	

		❖ Explain how organizations maintain and strengthen their safety culture ❖ Recognize the criteria for determining ethical decisions	
9.	**Describe organizational positive political skills**	❖ Discuss the importance of a positive impression ❖ Explain business etiquette ❖ Discuss forms and sources of organizational power ❖ Describe techniques for building relationships with managers and co-workers ❖ Recognize common political blunders ❖ Discuss change theory ❖ Describe the role of change agent	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- Lecture
- Help Sessions

Text Books & References:

Textbook:

1. Langton, N., Langton, N. & Robbins, S. P. (2006). Organizational *Behaviour* (4th ed.). Toronto: ON: Pearson Education Canada.

References

1. Stewart, J.M. (2002). *Managing for world class safety* (1st ed.). New York, NY: Wiley-Interscience.

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401222**
Course Title	**Environmental Management Systems**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- principles behind pollution prevention through application of waste minimization, and recycling, technologies to mitigate pollution at source, pathway and receptor, principles of Environmental Management System's (EMS) (International Organization for Standardization (ISO) 14000, Responsible Care , strategies for various industrial operations, hazardous waste materials management and emergency strategies

Course Objectives:

This course aims at:

1. Examine the principles behind pollution prevention through application of waste minimization, and recycling
2. Examine technologies to mitigate pollution at source, pathway and receptor
3. Describe the principles of Environmental Management System's (EMS) (International Organization for Standardization (ISO) 14000, Responsible Care
4. Identify management strategies for various industrial operations
5. Assess hazardous waste materials management and emergency strategies

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**the principles behind pollution prevention through application of waste minimization, and recycling**	❖ Discuss Jordanian and International environmental legislation ❖ Define pollution prevention and how it is applied in environmental regulation ❖ Discuss environmental emissions standards ❖ Examine waste minimization strategies ❖ Examine recycling initiatives and programs ❖ Discuss the importance of industry stewardship and regulation in recycling initiatives	
2.	**technologies to mitigate pollution at source, pathway and receptor**	❖ Differentiate technologies to mitigate pollution for solid, liquid, gaseous sources ❖ Describe continuous and periodic monitoring schemes for solid liquid and gaseous sources ❖ Describe technologies to intercept surface water, groundwater, solid, and gaseous pathways ❖ Compare online and periodic monitoring schemes for the various pathways ❖ Describe methods for mitigation of pollution at receptors	
3.	**the principles of Environmental Management System's (EMS) (International Organization for Standardization (ISO) 14000, Responsible Care**	❖ Discuss ISO 14000 ❖ Identify the impact ISO 14000 and national standards have on Jordanian industries ❖ Discuss environmental impact reviews	
4.	**management strategies for**	❖ Identify waste streams of industry - Pulp and Paper	

	various industrial operations	❖ Identify waste streams of industry – Chemical manufacture ❖ Identify waste streams of industry – Agricultural operations ❖ Identify waste streams of industry – oil and gas ❖ Identify waste streams of industry – mining ❖ Identify waste streams of industry – construction	
5.	**Assess hazardous waste materials management and emergency strategies**	❖ Discuss hazardous substance waste dangerous storage ❖ Discuss hazardous waste technology ❖ Analyze environmental response and containment strategies ❖ Prepare an emergency response plan ❖ Identify reporting and documentation requirements	
6.			

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- ❖ Lecture
- ❖ Help Sessions

Text Books & References:

Textbook:

No suggested textbooks, instructors should search theirown

References

- U. S Environmental Protection Agency: http://www.epa.gov/
- Environment Canada: http://www.ec.gc.ca

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401216**
Course Title	**Policies and Safe Workplace Procedures**
Credit Hours	**(3)**
Theoretical Hours	**(3)**
Practical Hours	**(0)**

Brief Course Description:

- Current policies and procedures designs ,corporate health and safety commitment statement, chemical hazard policy and procedure, personal protective equipment policy and procedure, incident policy, procedure and reporting form , inspection policy, procedure and reporting form, emergency fire evacuation policy and procedures, program evaluation strategies, cost of intervention and prevention strategies

Course Objectives:

This course aims at:

1. Examine current policies and procedures designs
2. Design a corporate health and safety commitment statement
3. Develop a chemical hazard policy and procedure
4. Design a personal protective equipment policy and procedure
5. Develop an incident policy, procedure and reporting form
6. Develop an inspection policy, procedure and reporting form
7. Examine emergency fire evacuation policy and procedures
8. Discuss program evaluation strategies
9. Assess the cost of intervention and prevention strategies

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**current policies and procedures designs**	❖ Define policy ❖ Examine components of policies ❖ Review a general occupational health and safety policy ❖ Define procedure ❖ Examine components of procedures ❖ Discuss examples of industrial procedures	
2.	**corporate health and safety commitment statement**	❖ Discuss Jordan's Safety Law ❖ Discuss corporate roles and responsibilities for health, safety and environment ❖ Develop a corporate health, safety and environmental statement	
3.	**chemical hazard policy and procedure**	❖ Review chemical hazards ❖ Discuss the hierarchy of hazard controls ❖ Design a general chemical hazard policy ❖ Design a specific chemical handling procedure	
4.	**personal protective equipment policy and procedure**	❖ Define personal protective equipment ❖ Review the types of personal protective equipment ❖ Review a variety of personal protective equipment policies and procedures ❖ Develop a specific personal protective equipment policy and procedure	
5.	**incident policy, procedure and reporting form**	❖ Discuss the steps to managing health and safety programs ❖ Identify the purpose of an occupational health and safety programs ❖ Define regulatory requirements for incident reporting ❖ Discuss incident reporting criteria ❖ Design an incident reporting policy ❖ Design an incident investigation procedure ❖ Design an incident reporting form	
6.	**inspection policy, procedure and reporting form**	❖ Define regulatory requirements for workplace inspections ❖ Discuss inspection criteria ❖ Design an inspection policy	

		❖ Design an inspection procedure ❖ Design an inspection reporting form	
7.	**emergency fire evacuation policy and procedures**	❖ Identify emergency fire plans ❖ Discuss the roles and responsibilities related to fire evacuation ❖ Examine an industry fire evacuation policy and procedure	
8.	**program evaluation strategies**	❖ Define program evaluation ❖ Define the purpose of evaluation ❖ Discuss program evaluation strategies ❖ Identify methods to collect information	
9.	**Assess the cost of intervention and prevention strategies**	❖ Define cost benefit ❖ Define cost benefit trade off / safety break point ❖ Define the cost benefit analysis process ❖ Determine the cost benefit trade off / safety break point	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- ❖ Lecture
- ❖ Help Sessions

Text Books & References:

Textbook:

1. Dubrin, A. J. & Geerinck, T. (2008). *Human Relations: Interpersonal Job Oriented Skills* (3rd ed). Toronto, ON. Pearson Education Canada Inc
2. Kelloway , E. K., & Francis, L. (2008). *Management of Occupational Health and Safety* (4th ed.). Scarborough, ON, Canada: Thompson Learning.

References

1. Basaraba, B. M. (1999). *IPT's safety first handbook: Book one.* Edmonton, ALTA, Canada: IPT Publishing and Training
2. Setting up an Occupational Health and Safety Program located at: http://www.lrws.gov.sk.ca/Default.aspx?DN=6c991c55-55f3-4c86-89af-343b37e88ce3

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401232**
Course Title	**Permit Work and High risk tasks**
Credit Hours	**(3)**
Theoretical Hours	**(2)**
Practical Hours	**(2)**

Brief Course Description:

- Confined Space Entry, Lockout/Tag out, Hot work, Cranes, Excavations

Course Objectives:

This course aims at:

1. Examine Confined Space Entry
2. Examine Lockout/Tag out
3. Discuss hot work
4. Cranes
5. excavations

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**Confined Space Entry**	❖ Define a confined space ❖ Compare hazardous and non-hazardous confined spaces ❖ Examine potential hazards and control methods of confined space entries ❖ Examine pre-entry training and required equipment based on potential hazards ❖ Examine on-going entry requirements ❖ Examine post entry requirements ❖ Discuss emergency retrieval plans ❖ Examine industrial confined space entry permits	
2.	**Lockout/Tag out**	❖ Define Lock out /Tag out ❖ Identify hazards associated with lock out permit procedures (electrical, hydraulic, computer overrides etc.) ❖ Examine hazard specific processes and procedures required for proper lockout ❖ Examine individual worker training and equipment for lockout ❖ Examine industrial lock out permits ❖ Discuss emergency lock removal ❖ Discuss equipment tag out procedures ❖ Identify best practices for tag out of equipment	
3.	**Discuss hot work**	❖ Define hot work ❖ Identify tasks and hazards associated with hot work procedures ❖ Discuss basic fire watch and containment equipment associated with hot work procedures ❖ Discuss industrial best practice associated with hot work procedures ❖ Discuss the validity to implementing a hot work permit	
4.	**Cranes**	❖ identify the most common crane hazards	

		❖ Identify how take the necessary steps to avoid those hazards	
5.	**excavations**	❖ Identify the most common excavation hazards ❖ Identify how take the steps necessary to avoid those hazards	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- ❖ Lecture
- ❖ Help Sessions

Text Books & References:

Textbook:

1. Kelloway E. K., Francis, L., & Montgomery, J. (2008). Management of occupational health and safety (4th ed.). Scarborough, ON: Thompson Learning

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401233**
Course Title	**Risk analysis and Hazard Control**
Credit Hours	**(3)**
Theoretical Hours	**(2)**
Practical Hours	**(2)**

Brief Course Description:

- Workplace hazard classifications, basic hazard identification methods, risk and risk analysis, Hazard methods of hazard control

Course Objectives:

This course aims at:

1. Identify workplace hazard classifications
2. Discuss basic hazard identification methods
3. Examine risk and risk analysis
4. Methods of hazard control
5. Personal Protection Equipment

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**workplace hazard classifications**	❖ Define hazard ❖ Recognize types of physical hazards ❖ Review effects of physical hazards ❖ Recognize types of biological hazards ❖ Identify effects of biological hazards ❖ Recognize chemical hazards ❖ Identify effects of chemical hazards ❖ Define psychosocial hazards ❖ Outline signs and symptoms of psychosocial hazards	
2.	**basic hazard identification methods**	❖ Discuss proactive hazard identification methods ❖ Discuss reactive hazards identification methods ❖ Identify how workplace illness and injuries impact the workplace	
3.	**risk and risk analysis**	❖ Differentiate entry routes into the human body ❖ Identify basic environmental impact of hazards ❖ Define risk ❖ Define severity ❖ Define frequency ❖ Define probability ❖ Discuss risk analysis ❖ Perform risk calculations using case studies	
4.	**Methods of hazard control**	❖ Define hazard control ❖ Discuss importance of the hierarchy of controls ❖ Examine elimination and substitution controls ❖ Examine engineering controls ❖ Examine administrative controls	
5.	**Personal Protection Equipment**	❖ Discuss types of personal protective equipment (PPE) ❖ Examine selection process for PPE ❖ Compare specific types of PPE ❖ Discuss basics of worker PPE training ❖ Discuss the importance of a Certified PPE ❖ List the available types, application and limitations of PPE	

		❖ Identify the Employer and Employee responsibilities to obtain and use PPE ❖ List the Inspection and use criteria for PPE, including the manufacturer's recommendations ❖ Show knowledge of specific training and retraining requirements for PPE usage and employer specific requirements. ❖ Demonstrate the donning and doffing of basic common PPE	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	

Teaching Methodology:

- Laboratory sessions
- Help Sessions

Text Books & References:

Textbook:

1. Kelloway, E. K., Francis, L., and Montgomery, J. (2008). *Management of occupational health and safety (4th ed.).* Scarborough, ONT, Canada: Thompson Learning

References:

- Advance Education, Employment and Labour (Sask Labour) has a number of other publications regarding noise and hearing protection.

http://www.lrws.gov.sk.ca/Default.aspx?DN=2828b462-60c1-454c-9969-51454486a9c6

- Canadian Center for Occupational Health and Safety: www.ccohs.ca
- Occupation Safety and Health Administration: www.osha.gov

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401234**
Course Title	**Emergency Action Plan and Response**
Credit Hours	**(3)**
Theoretical Hours	**(2)**
Practical Hours	**(2)**

Brief Course Description:

- Key Steps to Emergency Preparedness, Establishing the Planning Team, Identifying Potential Emergencies and Assessing Risk, Assessing Your Organization's Emergency Response Capabilities, Building the Emergency Response Plan, Implementing the Plan: Preparing to Respond, Evaluating Effectiveness and Continuous Improvement, Emergency Medical Response

Course Objectives:

This course aims at:

Detailed Course Description:

Unit Number	Unit Content	Time Needed
1.	**The Key Steps to Emergency Preparedness**	
2.	**Establishing the Planning Team**	
3.	**Identifying Potential Emergencies and Assessing Risk**	
4.	**Assessing Your Organization's Emergency Response Capabilities**	
5.	**Building the Emergency Response Plan**	
6.	**Implementing the Plan: Preparing to Respond**	
7.	**Evaluating Effectiveness and Continuous Improvement**	
8.	**Emergency Medical Response** ❖ Introduction to EMS Systems ❖ Legal and Ethical Issues ❖ Well-Being of the EMR ❖ The Human Body ❖ Lifting, Moving, and Positioning Patients ❖ Patient Assessment ❖ Caring for Medical Emergencies ❖ Bleeding, Shock, and Soft Tissue Injuries	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- Lecture
- Help Sessions

Text Books & References:

Textbook:

1. Introduction to emergency Management, 4th Edition, Haddow, G., Pullosk, j. and Coppola, D., 2011

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401235**
Course Title	**Incidents Analysis and investigations**
Credit Hours	**(3)**
Theoretical Hours	**(2)**
Practical Hours	**(2)**

Brief Course Description:

- Incident legislation, incident investigation theories, pre-incident preparation, collection of physical evidence, witness evidence, documentary evidence, incident causation, post-incident reports, investigation findings.

Course Objectives:

This course aims at:

1. Discuss incident legislation
2. Examine incident investigation theories
3. Examine pre-incident preparation
4. Examine collection of physical evidence
5. Examine witness evidence
6. Examine documentary evidence
7. Analyze incident causation
8. Assemble post- incident reports
9. Propose investigation findings

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**incident legislation**	❖ Recognize incident terminology ❖ Discuss relevant Jordan safety legislation ❖ Examine criteria for performing an investigation ❖ Discuss workplace investigation roles and responsibilities ❖ Identify the role of Jordan's health and safety authorities	
2.	**incident investigation theories**	❖ Discuss pyramid models of accident causation ❖ Identity the principles of early domino models ❖ Discuss event and fault tree analysis models ❖ Discuss the principles of psychological models ❖ Examine principles of behaviour-based safety models ❖ Examine the principles of energy models	
3.	**pre-incident preparation**	❖ Discuss incident policies and procedures ❖ Recognize key stakeholders ❖ Examine on and off site notification protocols ❖ Examine incident investigator training ❖ Examine in-house emergency response training	
4.	**collection of physical evidence**	❖ Examine scene security ❖ Examine identification of scene evidence ❖ Examine equipment evidence	
5.	**witness evidence**	❖ Identify key witnesses ❖ Discuss interviewing technique ❖ Discuss comparing witness evidence	
6.	**documentary evidence**	❖ Identify key internal documentary evidence ❖ Identify key external documentary evidence ❖ Examine documentary evidence and the relationship with due diligence	

7.	**incident causation**	❖ Examine direct causes ❖ Examine indirect causes ❖ Determine root cause ❖ Propose recommendations and controls	
8.	**Assemble post-incident reports**	❖ Examine current preventative strategies ❖ Examine incident documents ❖ Develop an incident investigation form ❖ Prepare an incident report using a case study	
9.	**Propose investigation findings**	❖ Identify key implementation stakeholders ❖ Propose corrective action ❖ Examine monitoring and quality improvement initiatives ❖ Identify protocols to ensure safety responsibility	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- Lecture
- Help Sessions

Text Books & References:

Textbook:

1. Vincoli, Jeffrey (1994) *Basic Guide to Accident Investigation and Loss Control*, John Wiley & Sons
2. Dyck , D. (2007) *Occupational Health and Safety: Theory, Strategy and Industry Practice* Canada, Lexis-Nexis.

References

1. Stephans, R. (2004) *System Safety for the 21st Century,* Hoboken, New Jersey, John Wiley & Sons, Inc
2. Hagan, P., Montgomery, J., O'Reilly, J. (2009) *Accident Prevention Manual for Business and Industry*, U.S.A., National Safety Council
3. Kelloway, E. K. and Francis, L. (2008) Management of occupational health and safety
4. Video:
   a. http://www.metacafe.com/watch/884391/forklift_accident/

Occupational Health Safety and Enviroment	
Specialization	**Occupational Health, Safety and Environment**
Course Number	**22401231**
Course Title	**Fire Prevention and Protection**
Credit Hours	**(3)**
Theoretical Hours	**(2)**
Practical Hours	**(2)**

Brief Course Description:

- Basics of fire chemistry and behaviour, causes of fire, Fire & Building Code requirements, fire detection systems, fire control systems, and emergency preparedness fire plan.

Course Objectives:

This course aims at:

1. Review the basics of fire chemistry and behaviour
2. Discuss causes of fire
3. Discuss Fire & Building Code requirements
4. Explain fire detection systems
5. Explain fire control systems
6. Develop an emergency preparedness fire plan
7. Evaluate a fire plan

Detailed Course Description:

Unit Number	Unit Name	Unit Content	Time Needed
1.	**basics of fire chemistry and behaviour**	❖ Define fire ❖ Recognize the fire triangle ❖ State the fire tetrahedron ❖ Identify the classes of fire ❖ List the stages of fire ❖ Discuss fire terminology	
2.	**causes of fire**	❖ Identify ignition sources ❖ Define flash point and ignition points ❖ Recognize static electricity ❖ Recognize spontaneous ignition ❖ Explain the uses of chemicals which pose a fire hazard ❖ Explain fire information contained within Material Safety Data Sheets (MSDS, SDS)	
3.	**Fire & Building Code requirements**	❖ Recognize the objectives of the Jordanian Code No. 15: Fire ❖ Review specific requirements of the Jordanian Code No. 27: Fire Alarm Systems ❖ Review specific requirements in the applicable Jordanian Building Codes ❖ Discuss regulators in fire safety ❖ Define employer responsibility for fire safety in the work place	
4.	**fire detection systems**	❖ Identify automatic fire detection systems ❖ Describe infared detection ❖ Recognize ultraviolet flame detectors ❖ Explain thermal detectors ❖ Describe smoke detectors ❖ Explain air sampling detectors ❖ Define fire alarm systems ❖ Identify the inspection, maintenance and testing of fire alarm systems	
5.	**fire control systems**	❖ Define automatic sprinkler systems	

		❖ Identify carbon dioxide systems ❖ Recognize halon and halon alternative systems ❖ Discuss portable fire extinguishers ❖ Identify fire extinguishers by type ❖ Describe the operation of fire extinguishers ❖ Identify the inspection, maintenance and testing of fire protection equipment	
6.	**Develop an emergency preparedness fire plan**	❖ Define automatic sprinkler systems ❖ Recognize the elements of a fire plan ❖ Review regulatory requirements for a fire plan ❖ Describe the requirements for national fire code and Safety Labour Law ❖ Develop an emergency response plan	
7.	**fire plan**	❖ Define the purpose of evaluating fire plans ❖ Determine evaluation time lines ❖ Review applicable standards and legislation ❖ Determine evaluation frequency ❖ Implement appropriate changes	

Evaluation Strategies:

Exams		Percentage	Date
Exams	First Exam	20%	--/--/----
	Second Exam	20%	--/--/----
	Final Exam	50%	--/--/----
Homework and Projects		10%	
Discussions and lecture Presentations			

Teaching Methodology:

- Lecture
- Help Sessions

Text Books & References:

Textbook:

1. Della-Giustina, D.E. (2003). *The Fire Safety Management Handbook (second edition), American Society of Safety Engineers, Des Plaines, Illinois*

References

1. Jordan's Fire Code
2. Jordan's Building Code