VELEUČILIŠTE U RIJECI

POLYTECHNIC OF RIJEKA

ENGLISH LANGUAGE I

FOR THE FIRST YEAR STUDENTS OF

OCCUPATIONAL SAFETY

STUDENT'S BOOK

Tatjana Šepić

VELEUČILIŠTE U RIJECI

Rijeka 2018.

Dr. sc. Tatjana Šepić, viši predavač

ENGLISH LANGUAGE I

Nakladnik:
Veleučilište u Rijeci
Trpimirova 2/V, Rijeka

Za nakladnika:
Dr. sc. Saša Hirnig, prof. v. š.

Recenzenti:
Doc. dr. sc. Brigita Bosnar-Valković
Dr. sc. Ksenija Juretić, viši pred.

Lektorica:
Nataša Barišić, prof.

Mjesto i godina izdanja:
Rijeka, 2018.

Naklada: udžbenik je objavljen u elektroničkom izdanju na *web*-stranicama Veleučilišta u Rijeci

Povjerenstvo za izdavačku djelatnost Veleučilište u Rijeci odobrilo je izdavanje ove elektroničke publikacije uvrstivši je u veleučilišne udžbenike (KLASA: 602-09/18-01/03, URBROJ: 2170-57-02-18-15).

ISBN:978-953-6911-98-1

CONTENTS

Acknowledgement

I would like to thank Micah D'Orazio and the American Society of Safety Engineers for their kind permission to use contributions published in *Career Guide to the Safety Profession*.
A selection of the texts from this source have been used to create this textbook.

Part One

About Safety Profession in General

Unit 1

What is the Safety Profession?

I Warm up

1. Try to explain in your own words what safety profession is!
2. What do you think are some of the tasks carried out by safety professionals?
3. Think of at least three or four different scientific disciplines that safety science comprises!

II Read the following text and check your answers:

The primary focus for the safety profession is prevention of harm to people, property and the environment. Safety professionals apply principles drawn from such disciplines as engineering, education, psychology, physiology, enforcement, hygiene, health, physics, and management. They use appropriate methods and techniques of loss prevention and loss control. "Safety science" is a twenty-first century term for everything that goes into the prevention of accidents, illnesses, fires, explosions and other events which harm people, property and the environment.

The U.S. has a lot to gain by reducing the number of these preventable events. The National Safety Council estimated that in the U.S., accidents alone cost our nation over $574.8 billion in 2004. Fire-related losses accounted for $9.8 billion of that total.

Illness caused by exposing people to harmful biological, physical and chemical agents produce great losses each year and accurate estimates of their impact are hard to make.

In addition, pollution of all kinds causes damage to all forms of life. This generates skyrocketing cleanup costs and threatens the future habitability of our planet.

The term "safety science" may sound new, but many sources of safety science knowledge are hundreds of years old. All of the following are knowledge areas of safety science:

- ***Chemistry*** and ***biology*** provide knowledge about hazardous substances.
- ***Physics*** tells people about electricity, heat, radiation and other forms of energy that must be controlled to ensure safe use.
- ***Ergonomics*** helps people understand the performance limits of humans and helps them design tasks, machines, work stations and facilities which improve performance and safety.
- ***Environmental sciences*** provides knowledge about pollution sources and their control, waste disposal, impact studies, environmental alteration (heat, light, irrigation, erosion, etc.), and ecology.
- ***Psychology*** helps people understand human behaviors that can lead to or avoid accidents.

• ***Physiology, biomechanics*** and ***medicine*** help people understand the mechanisms of injury and illness and how to prevent them.

• ***Engineering***, ***business management***, ***economics***, and even ***sociology*** and ***geology*** give people the knowledge necessary to improve safety in our society and contribute to productivity and profitability.

The things that can cause or contribute to accidents, illnesses, fire and explosions, and similar undesired events are called “hazards”.

Safety science gives people the ability to identify, evaluate, and control or prevent these hazards. Safety science provides management methods for setting policy and securing funds to operate safety activities in a company.

Hazard control activities go on every day throughout the world. From the careful design and operation of nuclear power generating stations to the elimination of lead-based paints in homes, the efforts to reduce threats to public safety go on nonstop. The application of safety science principles occurs in many places: in the workplace, in all modes of transportation, in laboratories, schools, and hospitals, at construction sites, on oil drilling rigs at sea, in underground mines, in the busiest cities, in the space program, on farms, and anywhere else where people may be exposed to hazards.

Safety science helps people understand how something can act as a hazard. People must know how and when the hazard can produce harm and the best ways to eliminate or reduce the danger. If a hazard cannot be eliminated, we must know how to minimize exposures to the hazard. This costs money and requires assistance from designers, owners and managers. Safety professionals must know the most cost-effective ways to reduce the risk and how to advise employees, owners, and managers. By applying safety science, all of these activities can be effectively carried out. Without safety science, safety professionals rely on guesswork, mythology and superstition.

Safety professionals are the specialists in the fight to control hazards. To be called professionals, they must acquire the essential knowledge of safety science through education and experience so that others can rely on their judgments and recommendations. Top safety professionals demonstrate their competence through professional certification examinations. Regardless of the industry, safety professionals help to achieve safety in the workplace by identifying and analyzing hazards which potentially create injury and illness problems, developing and applying hazard controls, communicating safety and health information, measuring the effectiveness of controls, and performing follow-up evaluations to measure continuing improvement in programs.

III Reread the text if necessary and find the answers to the following questions:

1. What is the primary focus for the safety profession?

_____

2. Why do we say that safety profession is a 21st century term?

_____

3. What do countries gain by reducing the number of preventable accidents, fires etc.?

_____

4. Safety professionals apply principles drawn from different disciplines. Name them and explain how they are related to safety profession!

_____

5. What are hazards?

_____

6. Give some examples of hazard control activities!

_____

7. How does safety science help people when it comes to eliminating or minimizing hazards?

_____

8. Who are safety professionals? What is their job?

_____

IV Match the words from column A with the most appropriate word in column B. Only one match is possible:

A	B	
1.underground	a) behaviour	1._____
2. preventable	b) mines	2._____
3. human	c) methods	3._____
4. management	d) science	4._____
5. safety	e) events	5. _____

V Find the verbs in the text which go with tho following expressions:

1. _____ lead-based paint(s)
2. _____ management methods
3. _____ harmful agents
4. _____ principles from various disciplines
5. _____ the future habitability of our planet

VI Write the opposite (antonym) of the following. Use prefixes/suffixes whenever possible:

1. harmful ≠ _____
2. ability ≠ _____
3. appropriate ≠ _____
4. the best ≠ _____
5. to lose ≠ _____
6. to maximize ≠ _____

VII Turn the following nouns into verbs:

1. advice to _____
2. explosion to _____
3. elimination to _____
4. exposure to _____
5. threat to _____

VIII Find in the text the adjectives derived from the following nouns:

1. hazard _____
2. environment _____
3. effect _____
4. chemistry _____
5. prevention _____
6. psychology _____

IX Find in the text the synonym (words of the same/similar meaning and different form) of the following words:

1. basic, fundamental _____
2. to struggle _____
3. precise _____
4. expert _____
5. influence _____
6. to create, to produce, to make _____

X Find the words in the text which correspond to the following explanations:

1. the condition of a place that makes it suitable for living _____
2. opportunity or equipment for doing something, a plant, a factory _____
3. to go beyond, to do more than is allowed, surpass _____ _____
4. a science which provides knowledge about hazardous substances _____
5. if an amount, value or cost of something rises quickly to a very high level

_____

Unit 2

What Safety Professionals Do

I Warm up

1. What do safety professional do?
2. What do their different tasks depend on? Give some examples!

II Read the following text and underline all the words you do not understand.

Before you look them up in a dictionary, try to guess their meaning from the context.

Wherever people run the risk of personal injury or illness, they are likely to find safety professionals at work. Safety professionals are people who use a wide variety of management, engineering and scientific skills to prevent human suffering and related losses. Their specific roles and activities vary widely, depending on their education, experience and the types of organizations for whom they work.

Safety professionals who have earned doctoral degrees are often found at the college and university level, teaching and doing research, public service and consulting. Most safety professionals, however, have bachelor's or master's degrees. These professionals may be found working for insurance companies, in a variety of industries, for state and federal agencies like the Occupational Safety and Health Administration (OSHA), and in hospitals, schools and nonprofit organizations.

An American national standard sets forth common and reasonable parameters of the professional safety position.

Safety professionals' precise roles and responsibilities depend on the companies or organizations for whom they work. Different industries have different hazards and require unique safety expertise. However, most safety professionals do at least several of the following:

- ***Hazard Recogni t ion***: identifying conditions or actions that may cause injury, illness or property damage.
- ***Inspections/Audits***: assessing safety and health risks associated with equipment, materials, processes, facilities or abilities.
- ***Fire Protection***: reducing fire hazards by inspection, layout of facilities and processes, and design of fire detection and suppression systems.
- ***Regulatory Compliance***: ensuring that mandatory safety and health standards are satisfied.
- ***Health Hazard Control***: controlling hazards such as noise, chemical exposures, radiation, or biological hazards that can create harm.
- ***Ergonomics***: improving the workplace based on an understanding of human physiological and psychological characteristics, abilities and limitations.

• ***Hazardous Materials Management***: ensuring that dangerous chemicals and other products are procured, stored, and disposed of in ways that prevent fires, exposure to or harm from these substances.

• ***Environmental Protection***: controlling hazards that can lead to undesirable releases of harmful materials into the air, water or soil.

• ***Training***: providing employees and managers with the knowledge and skills necessary to recognize hazards and perform their jobs safely and effectively.

• ***Accident and Incident Investigations***: determining the facts related to an accident or incident based on witness interviews, site inspections and collection of other evidence.

• ***Advising Management***: helping managers establish safety objectives, plan programs to achieve those objectives and integrate safety into the culture of an organization.

• ***Record Keeping***: maintaining safety and health information to meet government requirements, as well as to provide data for problem solving and decisionmaking.

• ***Evaluating***: judging the effectiveness of existing safety and health related programs and activities.

• ***Emergency Response***: organizing, training and coordinating skilled employees with regard to auditory and visual communications pertaining to emergencies such as fires, accidents or other disasters.

• ***Managing Safety Programs***: planning, organizing, budgeting, and tracking completion and effectiveness of activities intended to achieve safety objectives in an organization or to implement administrative or technical controls that will eliminate or reduce hazards.

• ***Product Safety:*** assessing the probability that exposure to a product during any stage of its lifecycle will lead to an unacceptable impact on human health or the environment and determining the appropriate auditory and visual hazard warnings.

• ***Security***: identifying and implementing design features and procedures to protect facilities and businesses from threats that introduce hazards.

No matter where people work, travel, live or play, conditions exist that can result in personal injury or illness. And wherever the possibility of personal injury or illness exists, they will find safety professionals dedicated to preventing human suffering and related losses.

Successful safety professionals are effective communicators with strong “people skills.” Most people in this profession characteristically possess the desire to help and work with others. The safety professional faces new challenges almost daily. The satisfaction of knowing that people have been protected because harmful accidents and other incidents have been prevented is just one of the many rewards associated with professional safety practice or “what safety professionals do”.

I Answer the following questions:

1. Where do safety professionals work?

_____

2. What do they use in order to prevent human suffering and related losses?

_____

3. What do their specific roles and activities depend on?

_____

4. Name at least five activities safety professionals carry out! Explain them!

_____

5. What do most safety professionals do regardless of the industry or companies they work for? Explain!

_____

6. List some characteristics of safety professionals! What are some rewards associated with safety profession?

_____

II Match the words from column A with the most appropriate word in column B:

A	B	
1. personal	a) materials	1. _____
2. site	b) damage	2. _____
3. harmful	c) releases	3. _____
4. undesirable	d) inspection	4. _____
5. property	e) injury	5. _____

III Find the verbs in the text which go with the following expressions:

1. _____ objectives
2. _____ suffering
3. _____ challanges
4. _____ requirements
5. _____ risks

IV Form adjectives from the following nouns:

1. hazard _____
2. success _____
3. harm _____
4. effect _____
5. environment _____
6. difference _____

V Which prepositions are used with the following verbs:

1. to depend _____
2. to result _____
3. to be based _____
4. to dispose _____
5. to be dedicated _____

VI Find the words in the text which have a similar meaning to the following explanations:

1. sudden state of danger requiring immediate action, for e.g. _____ situation
2. succeed in getting, acquire, buy, e.g. to _____ chemicals
3. compulsory, necessary, required, e.g. _____ standards
4. upper layer of earth in which plants grow _____
5. return or recompense for service or merit; sum offered for detection of criminal, recovery of lost property. _____

VII Write the term which corresponds with the following definitions:

1. Controlling hazards that can lead to undesirable releases of harmful materials into the air, water or soil.
   _____
2. Identifying conditions or actions that may cause injury, illness or property damage. _____
3. Judging the effectiveness of existing safety and health related programs and activities.
   _____
4. Controlling hazards such as noise, chemical exposure, radiation, or biological hazards that can create harm. _____
5. Reducing fire hazards by inspection, layout of facilities and processes and design of fire detection and suppression systems. _____

VIII Make a list of all the expressions that you can think of with the verb TO RUN. Use an online dictionary to help you:

e.g. to run <u>the risk</u>

_____	_____	_____
_____	_____	_____

Unit 3

Where Safety Professionals Work

Warm up

List all the places that you can think of where safety professonals work!

Now read the text and complete your list!

Since safety professionals provide technical assistance in identifying, evaluating and controlling hazards, safety professionals work virtually anywhere where people might be exposed to hazards. There are positions for safety professionals in every part of the United States and in other countries.

No matter what a company's business is, its employees can encounter some type of hazard, either at work, getting to and from work or at home or play. Even working at a computer terminal can be hazardous, producing long-term injuries to the hand and wrist, back or other parts of the body. Whether a company does manufacturing, mining, transportation, agriculture, chemicals, fuels production, construction, or provides services, it will always face hazards in some or all of its operations. It is likely that the company would employ or contract with one or more safety professionals.

It is common for companies to employ safety professionals at particular work sites. At corporate offices, safety professionals can coordinate the hazard control activities away from the work sites. Some college graduates in safety begin their careers as safety associates, coordinators or assistant managers at small plants or company work sites. After a period of training and successful performance, the graduates may advance to Safety Manager at a small plant. Later, they may advance to similar positions at larger facilities.

In recent years, safety professionals are working more and more in diverse and nontraditional worksites as many job opportunities have expanded to government, construction, transportation, service industries and consulting practices, among others. Such employment requires safety professionals to travel to different worksites to provide support to their internal and external clients.

Many companies have combined safety, industrial hygiene, environmental affairs, fire protection and ergonomics into a single functionoun A safety professional may advance by overseeing the work of all areas in the department.

International projects are on the rise and the number of companies operating outside the United States continues to increase. Safety professionals must now adapt to multilanguage contexts.

Many safety professionals aspire to become a Corporate Safety Manager/Director/Vice President with responsibilities for leading and managing the safety function at the organization's corporate or division headquarters. There they have broader responsibilities and may have to travel

often to visit various work sites. Other safety professionals prefer to remain at one work site where their responsibilities can be just as challenging, but where travel is light.

Figure 1. Industries in which Safety Professionals Work.
Based on a 2000 BCSP Salary Study.

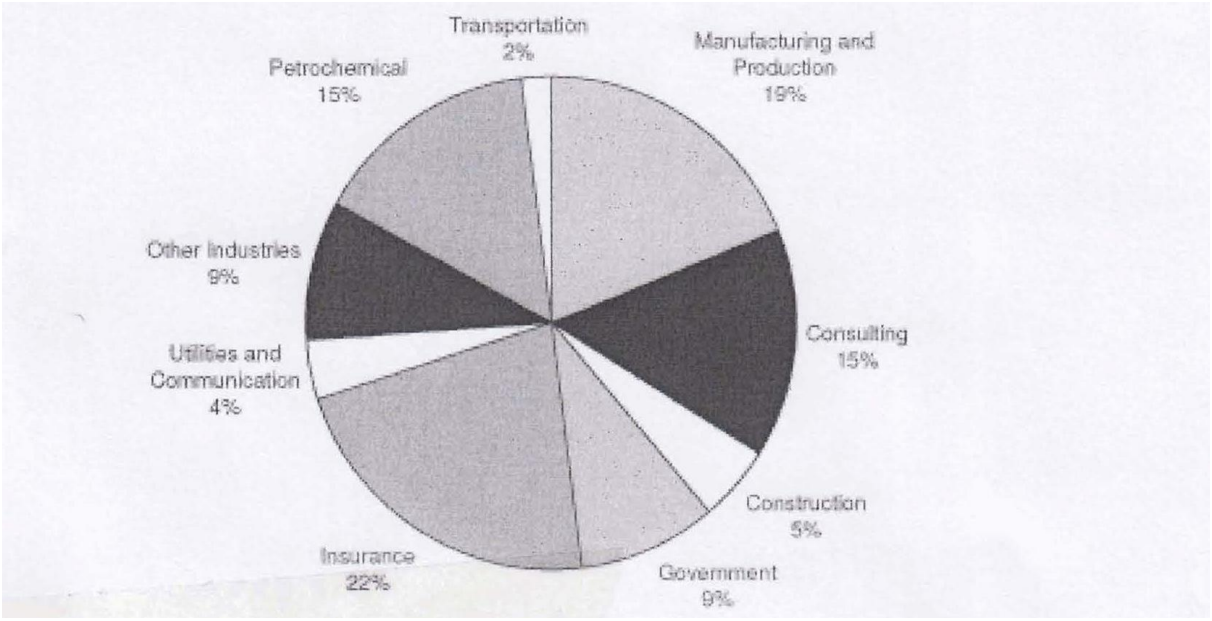

Table 1. Safety Professionals within
Manufacturing and Production Industries
(19%)

Industry	**Percent**
Apparel and other finished fabric products	<1
Chemicals and allied products	25
Crude petroleum and natural gas	9
Electrical machinery, equipment, and supplies	10
Fabricated metal products	3
Food products	4
Furniture and fixtures	<1

Leather and leather products	<1
Lumber and wood products	1
Machinery	2
Ordnance	2
Paper and allied products	3
Petroleum refining and related industries	10
Primary metal industries	3
Printing, publishing and allied industries	1
Professional, scientific, and controlling instruments	3
Rubber and plastic products	3
Stone, clay, and glass products	2
Textile mill products	1
Tobacco	1
Transportation equipment	6
Miscellaneous manufacturing	9
Total	**100**

Table 2. Safety Professionals within Other Businesses (9%)

Industry	**Percent**
Agricultural, forestry, and fisheries	2
Banking and real estate	1
Educational services (colleges, universities, libraries)	33
Hotels and miscellaneous personal services	5
Medical and health services	12
Mining	11
Nonprofit membership organizations	2
Retail trades	4
Wholesale trades	4
Non-classifiable establishments	24
Total	**100**

Table 3. Safety Professionals within Government (9%)

Level of Government	**Percent**
International	1
Federal	72
State	11
Local	16
Total	**100**

Table 4. Safety Professionals within Utilities and Communication (4%)

Industry	**Percent**
Utilities	76
Communication	24
Total	**100**

Table 5. Safety Professionals within Transportation Industries (2%)

Industry	**Percent**
Air	38
Local, suburban and urban passenger	5
Motor freight transportation and warehousing	14
Railroad	33
Water	10
Total	**100**

Figure 1 shows where safety professionals are employed in general.
Tables 1 through **5** provide more details about employment for safety professionals.

A growing number of safety professionals who have performed very well in their safety positions are being promoted to other responsible positions which extend beyond safety. For example, they might be placed in charge of a department, unit or the entire operation at a site. Since safety is an important part of all successful operations, safety

professionals are being recognized as people who can effectively contribute to other activities within the organization.

Some safety professionals work for consulting firms that are hired by organizations to provide specialized hazard control services, such as training of workers and engineers. Hazard control services might be provided on a onetime basis, or they might be performed on a regular basis. For example, NASA and other federal government agencies frequently contract with consulting firms for many of their engineering and other technical functions, including safety work. The consultants have offices on site and work side-by-side with federal employees on a long-term basis. Many large corporations are now using contractors in the same way. While some safety consultants provide their services to different clients all over the country, others work mainly in one city, state or area.

A safety professional may work in a large consulting firm with dozens of other consultants. However, many consultants work alone and are often self-employed on shortterm assignments in their particular specialty.

Safety consulting work covers a wide spectrum of hazard control activities. Some consultants specialize in evaluating and controlling only specific types of hazards. For example, safety consultants working as industrial hygienists concentrate on health hazards such as vapor, noise, radiation, toxic dusts, gases, or other physical agents. Other safety consultants might specialize in construction hazards, or hazards of boilers, cranes, aircraft or chemical plants. A safety professional who gains a high degree of expertise with specific types of hazards, either through education or experience (and usually both) can have a satisfying and rewarding career as a safety consultant. Those involved in consulting work also need to be able to manage the day-to-day aspects of operating a private business.

Many safety consultants with professional skills or expertise in a specific area provide expert witness and litigation support.

Insurance companies often provide consulting services to the policy holders they insure. These safety professionals are known as loss control representatives. They work for an insurance company and visit the facilities of insured policy holders to assist them with hazard recognition, evaluation and control. Many safety professionals begin their careers as loss control representatives.

Because of the tragic losses caused by uncontrolled hazards, federal, state and local government have created laws or regulations regarding how and when hazards are to be controlled. To enforce these laws and regulations, government agencies employ safety professionals as inspectors and accident investigators. They visit sites where uncontrolled

hazards are thought to exist. These government-employed safety professionals usually work in one area of the country or within a state. They may also need to visit sites in that area, either on a regular or occasional basis. They provide the information needed to determine if government laws, regulations or standards have been met. From their recommendations, changes can be made to achieve better control of any hazard found to exist.

I Answer the following questions:

1. Where do safety professionals work and why? What do they provide?

_____

2. Do all working people face hazards? Explain!

_____

3. What are the prospects of advancement when working in this field?

_____

4. Name some hazard control activities!

_____

5. Who are safety consultants? Where do they work?

_____

6. Who are loss control representatives? What do they do?

_____

7. What has been created by federal, state and local government? For what purpose? What is the role of safety professionals here?

_____

8. What do inspectors and accident investigators do and where do they work?

_____

9. Study Figure 1 and try to provide a similar one for Croatia, i.e. find out where safety professionals are employed in our country?

_____

II Find the words in the text which go with the following verbs:

1. to hire _____
2. to provide _____
3. to create _____
4. to gain _____
5. to employ _____

III Find the adjectives in the text which go with the following nouns:

1. _____ responsibilities
2. _____ dust
3. _____ holders
4. _____ number
5. _____ agents
6. _____ and _____ career
7. _____ hazards
8. _____ or _____ basis
9. _____ spectrum
10. _____ assistance

IV Write the opposites of the following:

1. regular basis ≠ _____
2. wide ≠ _____
3. loss ≠ _____
4. effective ≠ _____
5. to remain ≠ _____
6. to gain ≠ _____
7. success ≠ _____
8. private ≠ _____
9. similar ≠ _____

V Find all the verbs in the text which are used with the word HAZARD:

_____ _____

_____ _____

_____ _____

VII Find the verbs which go with the following expressions and use them in sentences of your own:

1. _____ services
2. _____ laws and regulations
3. _____ expertise
4. _____ activities
5. _____ the work

Language work

Present Simple and Present Continuous

Study the following examples. Why is Present Simple used for sentences 1-4 and Present Continuous for sentences 5-8?

1. Safety professionals **use** appropriate methods and techniques of loss prevention and loss control.
2. Hazard control activities **go** on every day throughout the world.
3. The safety professional **faces** new challenges almost daily.
4. Many safety professionals **aspire** to become a Corporate Safety Manager.

5. Nowdays safety professionals **are working** more and more in diverse and nontraditional worksites
6. He **is doing** some research in the field of ergonomics for his master's degree.
7. Peter is very busy at the moment. He **is designing** the layout of the building.
8. She **is working** as industrial hygienist in a large company, but she would prefer to work for an insurance company as loss control representative.

Present Simple

Positive

I / You / We / They visit construction sites.

He / She / It visit**s** construction sites.

= subject + verb

Negative

I / You / We / They **don't** want to work in a large company.

He / She / It **doesn't** want to work in a large company.

= subject + **do** / **does** + **not** + infinitive

Questions

Do I / you / we / they provide consulting sevices?

Does he / she / it provide consulting sevices?

= **Do** / **Does** + subject + infinitive

We use the **Present Simple** to talk about

• things that are always true

• for repeated actions

• with verbs that describe thinking and feeling

With the **Present Simple** we use adverbs and expressions of frequency such as *usually, often, always, sometimes, on Mondays, once a year,* etc.

Present Continuous

Positive

I **am** implement**ing** safety procedures.

You / We / They **are** implement**ing** safety procedures.

He / She / It **is** implement**ing** safety procedures.

= subject + **am** / **are** / **is** + **-ing** form of the verb

Negative

I **'m not** develop**ing** recommendations.

You / We / They **aren't** develop**ing** recommendations.

He / She / It **isn't** develop**ing** recommendations.

= subject + **am** / **are** / **is** + **not** + **-ing** form of the verb

Questions

Am I establish**ing** safety objectives?

Are you / we / they establish**ing** safety objectives?

Is he / she / it establish**ing** safety objectives?

= **am** / **are** / **is** + subject + **-ing** form of the verb

We use the **Present Continuous Tense** to talk about

• things that are happening now

• things that are happening for a limited period of time around now.

With the **Present Continuous**, we often use time expressions such as *now, at the moment, at present, currently, this year, this month,* etc.

Put the verbs in brackets in the correct tense, **Present Simple** or **Present Continuous**.

1. We (try) to integrate safety into the culture of our organization, but it is not easy.

   _____

2. How many safety professionals this company (employ) ?

   _____

3. He (determine) the facts related to an accident or incident based on site inspections.

   _____

4. How often they (test) these chemical and their effect on workers' health?

   _____

5. If hazards are not controlled, this often (lead) to undesirable releases of harmful materials into the air or water.

   _____

6. How safety science (help) people? _____
7. Pollution (not generate) only skyrocketing cleanup costs, but it also (cause) damage to all forms of life.

   _____

8. They (visit) some sites these days in order to establish if uncontrolled hazards (exist) there. _____

   _____

Unit 4

Employment Outlook for Safety Professionals

Warm up

Do you understand the the title of the unit? The meaning of the word 'outlook'? If you do not, try to guess!

Now read the text and see whether you were right!

The employment outlook for safety professionals is bright. Depending on their education, communication skills, experience and professional certifications, safety professionals can expect to have a rewarding career far into the future. Specialists will be needed as advancements in technology, regulations and public expectations increase.

With a bachelor's or master's degree, graduates can expect to find rewarding employment in business settings or in the public sector. They may also find a career with federal, state and local safety agencies. Some have responsibility for emergency response planning and management. Individuals may find employment in research laboratories and at colleges and universities, although some of these positions may require doctoral degrees.

The safety profession includes many new job classifications. For example, the field of ergonomics (fitting the job to the person) has grown as injury rates have climbed in meat processing, manufacturing and at computer workstations. Also, there is an increased emphasis on highway and construction safety. All of these areas offer good employment opportunities.

Insurance and worker's compensation costs have escalated over the last two decades and have become economic concerns for many employers. This has led to a growing emphasis on safety for companies and more employment opportunities for safety professionals. Responsible companies, concerned public and special interest groups have increased protection for our environment. The techniques and principles involved in achieving this are similar to those used in accident prevention. Safety professionals are often assigned responsibilities for environmental affairs. This increases the need for safety professionals in organizations with environmental hazards.

There is increased coverage in the print and broadcast media about hazardous waste spills, accidents, and other events that produce losses which could have been avoided through preventive measures and by better management. The adverse publicity creates opportunities for people trained to develop management systems that prevent losses. For some time, the career opportunities for innovative safety professionals have grown faster than the number of trained and qualified individuals available.

The need for safety professionals has continued to grow in spite of a shrinking U.S. manufacturing base. While many non-U.S. countries have safety standards less stringent than those found in the United States, responsible companies require their foreign plants to safeguard all employees. Many developing countries are also raising - and foreign countries are changing - their safety, health and environmental standards. In many cases, international standards now protect workers everywhere and U.S.-based safety professionals oversee safety at facilities outside the U.S.

Employment in the field of safety has continued to grow over the years. This growth has continued, even in bad economic times. There is no reason to believe that the need for more safety professionals will diminish in the near future. There is a need to replace those retiring from practice.

I Answer the following questions:

1.What is the employment outlook for safety professionals in the USA? What about Croatia and Europe?

_____

2.What can safety professionals expect depending on different degree of their education?

_____

3.Say something about safety professionals and environmental affairs!

_____

4.Why is the need for safety professionals growing?

_____

II Find the words in the text which go with the following expressions:

1. _____ career
2. _____ prevention
3. _____ publicity
4. _____ rates
5. _____ responsiblities

III Form verbs from the following nouns:

1. emphasis _____
2. classification _____
3. compensation _____
4. insurance _____
5. certification _____
6. injury _____

IV Find in the text synonyms of the following:

1. environment _____
2. chance, possibility to do something _____
3. ten years _____
4. worry, attention, care _____
5. something new, which brings new ideas, changes _____

V Find the words in the text which correspond to the following explanations:

1. radio or television program _____
2. unfavourable, critical, negative, harmful for. e.g. publicity _____
3. become or make smaller, decrease, shorten _____
4. increase or develop by stages _____
5. allow (liquid etc.) to fall or run out of container esp.accidentally, discharge _____

Unit 5

Should I Become a Safety Professional?

When choosing a future profession, as a student, what should I look for? Probably all of the following considerations are important: a profession that is respected, one that is associated with important work, one that gives you a feeling of accomplishment, and one that provides growth and the potential to advance in responsibility. You should also seek a profession where compensation reflects skills and accomplishments. A desirable profession provides stable employment, variety in the daily routine, while keeping interest high and stress low. These are characteristics of an ideal profession. While no profession is ideal for everyone, the safety profession scores very high on nearly all of these factors.

You may wonder if you have what it takes to be a successful safety professional. Here are some important things to consider. Are you motivated by a desire to help others? Do you believe that it is important to serve your neighbors and the community? Do you place a high value on health and the quality of life? Such motivation would help you be a successful safety professional, and at the same time, provide a great sense of satisfaction in a job well done.

Successful safety professionals must develop good skills in working with people and communicating with them. Many of these skills are gained during college and after a degree is completed. As a safety professional, you work with practically everyone in an organization. You should feel comfortable in talking and working with people of all ages and backgrounds.

Safety science is challenging, and the college course work can be difficult, but interesting. You will do quite well if you have good study habits and are willing to work hard. A college degree is essential for most safety professional positions. The more safety science courses you complete, the better prepared you will be for a safety career. Safety professionals must understand many technical concepts, so if you like science and mathematics, you will probably find safety science interesting.

You may be one of those students who are not especially outstanding in any one particular academic area, but you are an excellent organizer. You may enjoy planning and carrying out activities of all sorts, and when one event is completed, you are off to start planning the next one. These are interests and skills that can help you become a successful manager in an organization. Managers set up programs to achieve agreed-upon objectives and draw together other parts of the organization to work on carrying them out.

Many safety professionals hold positions as managers, so planning and organization skills are very important.

You may be absolutely certain about the career you want to pursue. You may not be sure even after you graduate from college. Being uncertain about a career is normal. It is quite common to change majors after starting college.

While you may view the safety profession as being rather specialized, an undergraduate safety curriculum is actually rather broad. Many colleges have a program that exposes you to a broad range of courses and fields of study. Such a program can help you find those activities and ideas that interest you the most. Undergraduate safety curriculums require a relatively wide assortment of courses. This provides a reasonably good preparation for entering business or industry in any functional area.

You will complete business courses as well as mathematics and science courses if you are a student in safety science. You will also take courses in communications and in the use of computers. These are subjects that will have a high value, even if you should later decide to switch majors.

Most safety science curriculums offer internship possibilities so that you can work in a safety-related position before you graduate. Internships also create opportunities to strengthen a résumé, to be more competitive for positions, and to demonstrate your capabilities to potential employers.

An internship is the ultimate test that you can use to answer the question, "Should I become a safety professional?" ASSE publishes guidelines for academic safety internship programs. The ASSE standard covers scope/purpose/application/ exceptions, definitions, general requirements, development of evaluation criteria, internship compensation and legal implications, and program evaluation.

Many people change to the safety profession from other departments or fields, such as human resources, engineering, quality control, nursing, and production management. Midcareer changes to safety are common. University courses offered in the evening, on weekends, and online enable adult learners to pursue masters degrees in safety. This road to professionalism provides opportunities to both broaden and deepen skills demanded by the marketplace. It also provides an effective path for those entering the field from other career areas.

I Answer the following questions:

1. What are the things to be considered when choosing a future profession?

_____

2. What about safety science both as a future profession and as a college course?

_____

3. What can students who are not outstanding in any particular academic area, but are excellent organizers become?

_____

4. What is undergraduate safety curriculum like in the USA? And in Croatia?

_____

5. What is an internship?

_____

6. What does ASSE stand for? What does it publish?

_____

7. How is internship organized in Croatia? Where can you find information about different possibilities for your practical part of the studies?

_____

8. Find out whether we have something similar to ASSE!

_____

II Find the verbs in the text which go with tho following words:

1. _____ a career
2. _____ and _____ activities
3. _____ a future career
4. _____ skills
5. _____ programs

II Turn the following nouns into adjectives:

1. reason _____
2. satisfaction _____
3. comfort _____
4. essence _____
5. desire _____

III Find the words in the text which correspond to the following explanations:

1. person's education, social circumstances etc., setting, surroundings

   _____

2. completion of a task for e.g., acquired skill, thing achieved

_____

3. student's main subject or course

_____

4. a person who has ambition or strong desire

_____

5. all the different courses of study that are taught in a school, college or university

_____

IV Find the opposites of the following:

1. narrow, limited ≠ _____
2. ordinary, not special, common ≠ _____
3. boring, monotonous ≠ _____
4. initial, first ≠ ___ _____
5. certain ≠ _____

Language work

Comparison of adjectives

We form the comparative of *one-syllable* adjectives by adding –**er,** and the superlative of *one-syllable* and most *two-syllable* adjectives by adding –**est** preceded by the definite article **the.**

high – high**er – the** high**est** fast – fast**er – the** fast**est**

clever – clever**er** – **the** clever**est**

We form the comparative of some *two-syllable* adjectives using **more** / **less,** while some other *two-syllable* adjectives (including those ending in –**ing**, -**ed**, -**ful** and –**less**) form the superlative with **the most/ the least.**

modern **- more** / **less** modern - **the most/the least** modern

doubtful **- more** / **less** doubtful - **the most/the least** doubtful

Adjectives ending in –**y** take –**er** for the comparative, and –**est** for the superlative, and the **y** changes to **i.**

nois**y** – nois**ier – the** nois**iest** eas**y – eas**ier – the** eas**iest**

We form the comparative of adjectives with *three* or *more syllables* by adding **more**/**less**, and the superlative by adding **the most**/**the least**

successful **- more**/**less** successful **- the most**/**the least** successful

hazadous **- more**/**less** hazadous **- the most**/**the least** hazadous

Some adjectives have irregular forms for comparative and superlative.

good	– better	– the best
bad	– worse	– the worst
little	– less	– the least
far	– farther	– the farthest (of distance only)
	– further	– the furthest
many/much	– more	– the most

Equality is expressed by using **as** .... **as**. Difference can be shown by using **not as** ....**as**.

e.g. This personal protective equipment is **(not) as** good **as** the other one.

Complete the following sentences using the comparative or the superlative form of the adjectives in brackets.

1. Nowadays there are (good) _____ employment opportunities for safety professionals than in the past.
2. Is there any area of safety profession where employment outlook is (favourable) _____ than in some other area?
3. We need to do some (far) _____ testing before we decide what to do.
4. Even (little) _____ dangerous professions has certain risks.
5. Mr Smith is (successful) _____ manager we have ever had.
6. This is (bad) _____ case of environmental pollution we have had in the last twenty years.
7. Certifications make the individual and consequently the firm (attractive) _____ _____ when selling services.
8. This new job gives you (broad) _____ responsibilities than you probably expected.
9. Maintaining a safe working environment for workers is as (important) _____ _____ it is maintaining safe environment for the people and communities surrounding their plants.

.

Part Two

Areas Where Safety Professionals Can Specialize

Safety professionals work in many different industries, job settings and specialties. The following texts give examples for many of them.

Unit 6

Occupational Safety

Many safety professionals work in manufacturing and production operations to help ensure that working conditions and work methods are safe and healthful for employees. Nearly every large plant or industrial facility employs at least one fulltime safety professional. Once safety professionals recognize hazards, they evaluate them, develop recommendations for controlling them and advise members of the management team. They also must be able to advise management about the best means for complying with regulations.

Occupational safety professionals must observe work activities and identify hazards in a wide variety of operations, such as lifting, working in high places, handling chemicals, operating machinery, storing explosives, excavating and repairing or maintaining equipment. They try to formulate plans and programs to prevent these hazards from happening. Occupational safety professionals must know health, safety and fire protection regulations which apply to any operations.

Occupational safety professionals preserve and protect human and facility resources in the workplace and security is a key issue and a growing concern. The occupational safety professional may be called upon to establish security guidelines and take precautions to protect property and workers.

They must prepare recommendations and advise managers about the best means for complying with standards, reducing hazards and making production activities safer. Occupational safety professionals need to be good communicators, since they often interact with employees, supervisors and managers when checking for hazards or working on options to control them. They often enlist employee participation in these activities. Frequently, they seek to persuade managers and employees to change operations or procedures and to spend money to make people safer.

In addition, to be effective, the occupational safety professional must be a part of the management team which improves productivity at the facility.

I Answer the following questions:

1. What do safety professionals who work in manufacturing and production operations ensure?

   _____

2. What are their next steps once they have recognized hazards?

   _____

3. Name several operations where occupational safety professionals need to observe work activities and identify hazards?

   _____

4. What kind of regulations they need to know?

   _____

5. What has become a key issue and a growing concern for occupational safety professionals?

   _____

6. What do they advise managers about?

   _____

7. Why is important for occupational safety professionals, and safety professionals in general, to be good communicators?

   _____

II Turn the following verbs into nouns:

1. to advise _____
2. to comply with _____
3. to maintain _____
4. to persuade _____
5. to excavate _____
6. to recommend _____
7. to participate _____
8. to repair _____

III Use the right preposition in the following sentences:

1. Safety professionals prepare recommendations and advise managers _____ the best way for complying _____ standards.
2. Industrial safety professionals need to be good communicators because they interact _____ employees, supervisors when checking ____ hazards or working _____ options to control them.
3. Industrial safety professionals are often part of the management team which improves productivity ____ the facility.
4. Safety professionals also enlist employee participation ___ checking and controlling hazards.

IV Find the words in the text which mean the following:

1. to care for, to keep in good condition, to look after, to service
   _____
2. to enrol in armed service, to secure as means of help or support
   _____
3. beneficial, conductive to good health
   _____
4. act in accordance with request, command, standard
   _____
5. opportunity or equipment for doing something, also plant, factory
   _____
6. search, require, request
   _____

V Find the verbs in the text which go with the following words:

1. _____ regulations
2. _____ with employees
3. _____ chemicals
4. _____ recommendations
5. _____ machinery
6. _____ working conditions and methods
7. _____ hazards
8. _____ equipment

VI Put the words in brackets into the correct form:

1. Once the safety professional _____ (recognition) hazards he has to evaluate them in order to control them and _____(reduction) or completely _____(elimination) them.
2. In order to be effective safety professionals must first observe work _____ (to be active) and identify hazards in a _____ (width) variety of operations.
3. Employee _____ (to participate) is very important in making production activities _____ (safety).
4. A safety professional also _____ (formulation) plans as part of _____ (to prevent) program.

Unit 7

Industrial Hygiene

Industrial hygienists specialize in workers' exposure to chemical and physical hazards created by industrial processes. For example, they might evaluate exposure to airborne lead created by a battery manufacturing process, or they might measure the exposure to noise produced by a ripsaw in a furniture manufacturing shop.

Most safety professionals have some responsibilities in their practice for industrial hygiene that may not make them a specialist. An industrial hygienist is trained to recognize health hazards, to evaluate their extent and to control them if an overexposure exists. An industrial hygienist evaluates hazards by studying the process, measuring the exposure and comparing samples to acceptable exposure levels.

The control of overexposure might involve changing the process to eliminate the hazard, substituting a less hazardous material, isolating the process or the worker, ventilating the process, or providing personal protection (for example, gloves and respirators) to the worker.

Industrial hygienists generally have an undergraduate degree in engineering or the physical, chemical, biological or safety sciences. Most industrial hygienists have a master's degree in industrial hygiene. They most often work for industries, government agencies and environmental consulting firms. A few industrial hygienists work in academic settings as teachers and researchers. Working in this setting generally requires a doctoral degree.

Industrial hygienists do not generally need to be licensed to pursue their profession. However, most industrial hygiene specialists hold the Certified Industrial Hygiene (CIH) certification. This requires at least five years of relevant experience before the successful completion an examination CIHs must maintain their certification (e.g., recertify every five years) by attending professional meetings, courses, conferences or other similar professional development activities.

I Answer the following questions:

1. What do industrial hygienists specialize in?

   _____

2. Give some examples of what they may evaluate!

   _____

3. What is an industrial hygienists trained to recognize?

   _____

4. What does the control of overexposure involve?

   _____

5. What sort of certifications and degrees industrial hygienists generally hold?

_____

II Match the terms from column A with the most suitable word from column B:

A	B	
1. exposure	a) experience	1. _____
2. relevant	b) hazards	2. _____
3. academic	c) material	3. _____
4. health	d) lead	4. _____
5. airborne	e) setting	5. _____
6. hazardous	f) level	6. _____

III Turn the following nouns into verbs:

1. pursuit _____
2. licence _____
3. sample _____
4. exposure _____
5. completion _____
6. process _____

IV Put the words in brackets into the correct form:

1. Working in academic setting _____ (requirement) a doctoral degree.
2. An industrial hygienists is trained to recognize health _____ (hazardous) and to control them if an overexposure _____ (existance).
3. The control of overexposure _____ (to involve) changing the process to eliminate hazards, substituting with a _____ (little) hazardous material, isolating the process or the _____ (to work) and so on.
4. Most industrial hygiene _____ (to specialize) hold the CIH certification.

V Translate the following sentences using the words from the text:

1. Dugotrajna izloženost opasnim kemijskim tvarima može ozbiljno ugroziti zdravlje radnika.

_____

_____

2. Prije nego započnemo s radom moramo prozračiti prostoriju.

_____

_____

3. Ako želiš nastaviti karijeru u tom području moraš imati licencu.

_____

_____

4. Kada su prošli put mjerili razinu olova u zraku rezultati su bili vrlo loši.

_____

_____

5. Prevelika izloženost buci isto je tako opasna kao i svaki drugi oblik ugrožavanja zdravlja ljudi.

_____

_____

Language work

Past Simple and Past Continuous

Study the following examples. Why is Past Simple and why is Past Continuous used in these sentences?

1. Companies **employed** less safety professionals in the past.
2. He **had** broader responsibilities in his last job.
3. They **organized** several courses for fire protection engineers two years ago.
4. They **were inspecting** the site when the accident **happened**.
5. The remediation contractor, together with specially trained workers, **was claening up** the hazardous waste site.
6. I **was performing** some tests yesterday morning.

Past Simple

Positive

I / You / He / She / It / We / They **required** assistance from safety specialists.

= subject + Past Simple

Negative

I / You / He / She / It / We / They **didn't require** assistance from safety specialists

= subject + **did not (didn't)** + infinitive

Questions

Did I / you / he / she / it / we / they **work** as a safety concultant?

= **Did** + subject + infinitive

There are many verbs which are irregular in the past simple. For a list of the most common irregular verbs, see for e.g. www.speakspeak.com. We form questions and negatives for irregular verbs in the same way as for regular verbs.

We use the Past Simple to talk about

• a complete action or event that happened at a particular point in the past or during a period that ended in the past.

With the Past Simple we often use time expressions such as *ago, last year, month, in the year X*, etc.

Past Continuous

Positive

I / He / She / It **was** implement**ing** safety procedures.

You / We / They **were** implement**ing** safety procedures.

= subject + **was** /**were** + **-ing** form of the verb

Negative

I / He / She / It **was not** develop**ing** recommendations.

You / We / They **weren't** develop**ing** recommendations.

.

= subject + **was** / **were** + **not** + **-ing** form of the verb

Questions

Was I / he / she / it establish**ing** safety objectives?

Were you / we / they establish**ing** safety objectives?

= **was** / **were** + subject + **-ing** form of the verb

We use the Past Continuous Tense to talk about

- past actions which continued for some time but whose exact limits are not known and are not important
- used with a point in time, it expresses an action which began before and probably continued after it

Put the verbs in brackets in the correct tense, **Past Simple** or **Past Continuous**.

1. He (persuade) managers to spend more money to make people safer.

   _____

2. He (work) as a fire protection engineer for five yeats and then he (decide) to change and do something different.

   _____

3. When they (conduct) the research, they (realize) that the workers (not wear) proper personal protective equipment.

   _____

4. After the disaster they (spend) months cleaning up the site.

_____

5. While he (work) as inspector he (have) to enforce laws and regulations. He also (advise) management and employees.

_____

6. In the past, uncontrolled hazards (cause) tragic losses.

_____

7. When he (design) equipment he (focus) on workers' capabilities and limitations.

_____

8. While I (study) the process I (measure) the exposure and (compare) samples twice a day over a longer period of time.

_____

Unit 8

Environmental Safety

Protecting the environment in the U.S. is a massive effort being conducted on several fronts. Businesses of all sorts are trying to either eliminate the release of materials that can harm the public or damage the environment or recover and recycle excess materials for environmental conservation. Another effort is being made all across America to clean up waste sites where toxic substances were spilled or have been dumped in the past. These efforts require the control of environmental safety and health hazards. Environmental safety work requires extensive knowledge of OSHA standards, other government or client safety regulations, and an understanding of hazards and controls (that is, construction, ergonomics, fire protection, occupational safety, industrial hygiene and environmental health). In addition, environmental safety requires a working knowledge of environmental laws and regulations, such as the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA) and others. Environmental safety professionals can gain this knowledge from undergraduate or graduate studies, extensive on-site experience, or a combination of both.

There are three general areas where the environmental safety professional can pursue career opportunities:

- ***Industrial/Government Sector:*** People can serve as environmental safety professionals for a specific facility or organization involved with OSHA, Department of Transportation (DOT), and Environmental Protection Agency (EPA) compliance, and state health and safety and environmental regulations. Additional duties may include overseeing the health and safety of onsite contractors.
- ***Consulting:*** People can work for design engineering firms and perform health and safety functions for their government or industrial projects. They can sell health and safety services to outside clients, including the private and public sector.

  Additional health and safety responsibilities may involve overseeing the health and safety of contractors when an engineering firm provides construction management or engineering services to a client.
- ***Contracting:*** This role involves being employed by and providing in-house health and safety services to remediation contractors who actually clean up hazardous waste

sites. Working in this arena requires an extensive construction background, since it involves hazardous waste activities coupled with heavy construction work.

In all three situations, it is desirable for the environmental safety professional to pursue professional certifications, specifically the Certified Industrial Hygienist (CIH) and the Certified Safety Professional (CSP). Many government and private sector remediation projects require that the person administering the health and safety program be certified as a CIH or a CSP. Consulting firms also value certifications because it makes the individual, and hence the firm, more attractive when selling services.

It is desirable to have these certifications in any situation where an organization is overseeing contractors and the project specifications require contractors to have certified personnel. Although not always required, it adds credibility if the primary contractor also employs certified personnel.

Environmental safety specialists need comprehensive knowledge of safety, industrial hygiene and environmental areas. With this wide range of knowledge, they can pursue a career in other health and safety specialties.

I Answer the following questions:

1. What does the protection of environment in the US consist of? Can you compare it to the situation in Croatia?

_____

_____

2.What does environmental safety work require?

_____

3. Name three general areas where the environmental safety professional can pursue career opportunities! Explain what does working in each of these three areas include?

_____

4. What kind of knowledge do environmental safety professionals need?

II Find the verbs in the text which go with the following expressions:

1. _____ hazardous sites
2. _____ a massive effort
3. _____ credibility
4. _____ professional certifications
5. _____ toxic substances
6. _____ or _____ excess materials

III Use the right preposition in the following sentences:

1. An effort is being made all _____ America to clean up waste sites where toxic materials were spilled or have been dumped _____ the past.
2. The work of a remediation contractor involves hazardous waste activities coupled _____ heavy construction work.
3. People can serve as environmental safety professionals _____ a specific facility or organization involved _____ OSHA, DOT and EPA compliance.
4. Environmental safety professionals _____ their wide range of knowledge can pursue a career _____ other health and safety specialities.

IV Find the words in the text which mean the following:

1. the situation when something is believable, possible, trustworthy _____
2. to set free, to liberate, make available for publication _____
3. document, formally attesting something _____
4. obedience to request, command, regulation etc._____
5. the process of improving a situation or correcting a problem _____
6. to return to health or normal state or possession _____
7. done, working or happening inside a company or organization _____
8. to carry out, to deliver, to execute, to organize _____

V Put the words in brackets into the correct form:

1. Contracting involves being _____ (employment) by and providing in-house health and safety services to _____ (a remedy) contractors.
2. Many government and private sector remediation projects require that the person _____ (administration) the health and safety program be _____ _____ _____(certificate) as a CIH or a CSP.
3. Consulting firms also _____ (valuable) certifications because it makes the individual and the firm more attractive when selling services.
4. It is _____ (a desire) for contractors to have these certifications when an organization needs to have certified personnel.

Language work

Countable and uncountable nouns

Countable nouns are people and things that we can count. They have a singular and a plural form for e.g. manager, hazard, recommendation, regulation.
Uncountable nouns are things tha we cannot count. They have no plural form for e.g. information, knowledge, experience, advice, help.
Many uncountable nouns can be used in a particular sense and are then countable. For e.g.
A good map would be a help.
Working in that company was an exciting experience.

Decide if these nouns are countable, uncountable or either, depending on the context. Write **C**, **U**, or **C** and **U** .

technology _____ accident_____ science _____ effect _____
fire _____ explosion_____ health_____ awareness_____
programme _____ outlook _____ expertise _____
substance _____

Unit 9

Fire Protection Engineering

Fire protection engineering is one of many interesting and challenging professional safety specialty areas. These safety specialists use the basic tools of engineering and science to help protect people, property and operations from fire and explosions.Employers and personnel recruiters consistently report good job opportunities with competitive starting salaries for fire protection engineers.

Fire protection engineers can be called on to provide a broad range of services. Some perform fire safety evaluations of buildings and industrial complexes to determine the risk of fire losses and how best to prevent them. Others design systems that automatically detect and suppress fires and explosions, as well as fire alarm, smoke control, emergency lighting, communication and exit systems. Fire protection engineers perform research on materials and consumer products, or do computer modeling of fire and smoke behavior. Others investigate fires or explosions that have occurred, prepare technical reports or provide expert courtroom testimony in legal cases.

Fire protection engineers work at the nerve centers of large corporations. They oversee the design and operational fire safety of complex manufacturing facilities in multi-national business networks. They also work for insurance companies, surveying major facilities and performing research, testing and analysis. Fire protection engineers can be found at all levels of government, including civilian and military agencies, local fire departments, building code departments and state fire marshal offices. They work for architectural and engineering firms and specialty consulting groups. Interesting jobs are available in trade associations, testing laboratories and at colleges and universities.

Thanks to the extensive fire research done in recent decades, fire protection engineering is making the transition from being based only on practical experience to an exciting engineering discipline that incorporates state-of-the-art science and computer capabilities. A few universities offer fire protection or fire protection engineering degree programs at the bachelor’s, master’s and doctoral levels.

I Make sure you understand the following words and expressions from the text.

Look up in a dictionary and add any other word to the list that you do not understand:

personnel recruiters

to recruite

consistent, -ly

to be called on

to determine

to supress (fire, explosions …)

lighting (not to be confused with light**tni**ng)

courtroom testimony, to testify

to survey

civilian agency

state fire marshal (offices)

state-of-the-art-science

_____ _____ _____

_____ _____ _____

II Answer the following questions:

1. What is fire protection engineering?

   _____

6. What do safety specialists use in this field?

   _____

7. What kind of services do fire protection engineers provide?

   _____

8. Where do fire protection engineers work?

   _____

9. What has fire protection engineering become lately?

   _____

III Find the verbs in the text which go with the following expressions.

Remember to write the verbs in the infinitive form, for example *to go*:

1. _____ expert courtroom testimony
2. _____ the basic tools of engineering
3. _____ good job opportunities
4. _____ the risk of fire losses
5. _____ fire and explosions
6. _____ technical reports
7. _____ and _____ fires and explosions
8. _____ the design and operational fire safety

IV Write the opposites of the following words:

1. challenging ≠ _____
2. to be consistent ≠ _____
3. broad ≠ _____
4. to suppress fire ≠ _____
5. exit ≠ _____
6. legal ≠ _____
7. large ≠ _____
8. complex ≠ _____
9. experience ≠ _____
10. exciting ≠ _____

V Fill in the gaps with the appropriate form of the words in brackets:

1. There are consistent reports about good job opportunities with _____ (1 - to compete) salaries for fire protection engineers.
2. Fire protection engineers perform research on material and _____ (2 – to consume) products or they do computer modelling of fire and smoke _____ (3 – to behave).
3. Some fire protection engineers perform fire safety _____ (4 - to evaluate) of buildings and industrial complexes to determine the risk of fire _____ (5 - to lose) and the way of preventing them.
4. Others investigate fires or explosions and prepare technical reports or provide expert courtroom _____ (6 - to testify).

Unit 10

Ergonomics

Ergonomics is the science of fitting the job to the person. Most safety professionals must deal with ergonomics in general safety practice. Ergonomics can be a specialty as well. Ergonomists (also called human factors engineers) specialize in the relationships between people and their work. They design the work environment (such as facilities, machines, furniture, equipment, work- stations, tools and work methods) to match job demands with workers' capabilities, limitations and expectations. A fundamental principle of ergonomics is to design equipment and jobs to prevent errors, accidents, injuries or harm.

Ergonomists work on a wide variety of safety and health hazards. Many ergonomists deal with the physical aspects of work, such as:

- Designing lifting tasks to reduce the risk of back injuries.
- Designing machines and equipment to reduce the force, frequency and flexion of repeated tasks that eventually injure joints, muscles and nerves. An example is designing machine guards that protect workers while still allowing smooth, efficient motion.
- Designing chairs that promote comfortable and healthy work postures.
- Designing work-rest schedules on physically demanding jobs to prevent excessive fatigue.

Ergonomists who specialize in solving these problems usually have a strong background in engineering, with additional course work in physiology, anatomy and biomechanics. Other ergonomists focus on the psychological and mental aspects of work such as:

- Designing effective warning labels to promote the safe operation of machines and tools.
- Designing displays (gauges, dials, alarms, etc.) and controls (buttons, knobs, steering wheels, etc.) for vehicles and other complex machines to reduce the chance of operator error and accidents.
- Designing training aids (instruction books, videos, simulators, etc.) to teach workers the proper and safe way to perform their jobs.

These ergonomists usually have a strong background in psychology with additional

training in engineering or design.

Most ergonomists have at least a master's degree, since there are few under graduate programs in ergonomics. Typically, ergonomists have undergraduate degrees in engineering or psychology before pursuing specialization in ergonomics at the graduate level. However, students with undergraduate training in safety sciences can also be considered for graduate training in ergonomics.

Career opportunities exist in industry (product design, work process and methods design), government (OSHA compliance officers), insurance companies (loss control representatives), private consulting and academic settings (research and teaching).

I Answer the following questions:

1. What is ergonomics?

_____

2. Give another name for ergonomists and say what they specialize in?

_____

3. What is the fundamental principle of ergonomics?

_____

4. List some physical aspects of work that ergonomists deal with!

_____

5. What is another aspect of work that ergonomists also deal with? Give some examples!

_____

II Find the verbs in the text which go with the following expressions:

1. _____ the work environment
2. _____ errors, accidents and injuries
3. _____ on psychological and mental aspects of work
4. _____ the risk of back injuries
5. _____ efficient motion

III Find in the text the adjectives which go with the following nouns:

1. _____ fatigue
2. _____ tasks
3. _____ jobs
4. _____ background
5. _____ labels

IV Match the terms in column A with the most appropriate explantion in column B:

1. work environment	a) instruction books, videos, simulators …
2. training aids	b) gauges, dials, alarms…
3. displays for vehicles and other complex machines	c) facilities, machines, furniture, equipment ...
4. controls for vehicles and other complex machines	d) buttons, knobs, steering wheels …

1. _____
2._____
3. _____
4. _____

V Turn the following nouns into verbs:

1. an injury _____
2. a focus _____
3. a schedule _____
4. a warning _____
5. a specialty _____

VI Insert the right preposition in the gaps below:

1. Ergonomists work _____ a wide variety of hazards.
2. To match job demands _____ workers' capabilitis and limitations.
3. To deal _____ physical aspects _____ work.
4. To specialize _____ solving problems.
5. To design displays and controls _____ vehicles and other machines.

Language work

Articles

Countable nouns must have a determiner (**a**, **the**, **my**, **this**, etc.) in the singular, although this is not necessary in the plural. We use **a** before a consonant and **an** before a vowel.

e.g. **An** organization must minimize the adverse effects of accidental losses.

Ø Large organizations employ several safety specialists

The definite article **the** means that the listener already knows which one/ones you mean.

e.g. They provide **the** information needed to determine ...

We don't use **a**/**an with uncountable nouns.**

. e.g. He gave me some *advice* on the matter.

We don't use **the** with uncountable nouns or plural countable nouns when talking about things in general.

Knowledge is important. Employment *opportunities* are good.

Complete the following sentences with **a**, **an**, **the** or nothing (/).

1. They provide _____ consulting services to ____ policy holders they insure.
2. Many firms require _____ candidates to have _____ Master's degree in busines administration.
3. _____Uncontrolled hazards can lead to undesirable releases of harmful materials into _____ air or water.
4. People must know how and when ____ hazard can produce _____ harm and ____ best ways to eliminate or reduce _____ danger.
5. After ____ period of training, _____ graduates may advance to _____ Safety Director at ____ small plant or to ____ similar positions at larger facilities.

Unit 11

System Safety

System safety specialists typically work with major new technological programs.Aerospace, military, medical, scientifically advanced projects and high-tech industries have relied on the system safety specialist to develop concepts, designs and products that have a high reliability of operation and low level of risk.

Have you ever marveled at the complexity of the space shuttle? Have you read about the complexity of software that manages the controls in today's aircraft and guides a plane safely through the skies? Have you ever thought about the management of materials flowing through chemical plants and the range of temperatures, pressures and chemical steps they experience while achieving the desired material? Each of these devices and processes works due to a high degree of reliability. In each case, system safety specialists reviewed the concept, design and construction of these magnificent machines and processes to ensure that they work correctly every time, without harm to users, operators or the equipment itself.

System safety is an analytical field, born of a high-tech need to develop quality products that have a minimum potential for failure. The system safety specialist reviews the design concept to identify the hazards associated with a human or machine failure. During design, the specialist (sometimes referred to as a system safety engineer) prescribes modifications to the design, or identifies the need to install redundant or backup systems to ensure reliability during operation. During testing, system safety specialists observe tests-in-progress or test results to see firsthand how a system interfaces with its environment. In recent years, this specialist has also been called on to ensure that safe decommissioning of outmoded systems occurs. Today they also analyze software for potential faults which can cause harm to people or the systems. Some specialize in analyzing electrical circuits and electrical systems and equipment for harmful events. Some work mainly with mechanical equipment and powered systems. Others work with chemical process plants to ensure that failures do not cause fire, explosions or releases of hazardous materials into the community..

The system safety specialist uses a variety of tools to identify possible system faults or other hazards that may lead to the failure of a product during its use. These traditional analytical tools consist of preliminary hazard analyses (PHA), failure mode and effects

analyses (FMEA) and fault tree analysis (FTA). Newer tools, such as hazard and operability studies (HAZOPS), have been developed to meet the demands of new applications such as chemical processes and industrial manufacturing methods.

If you enjoy asking "who, what, when, where, why, how, and if," you may have an aptitude for system safety work.

You will also need a technical background that is either general or involves special areas of knowledge, such as mechanical equipment, electrical equipment and electronics, computer hardware and software, chemical processes, management methods and procedures, maintenance, etc. System safety specialists combine knowledge of the systems and knowledge of analytical methods with hazard recognition, evaluation and control knowledge.

The system safety specialist will be in demand in the foreseeable future to protect employees and the public, the environment and the organization's investment in equipment, processes and facilities. This specialist will have opportunities to advance through technical or management career ladders.

I Answer the following questions:

1. What do system safety specialists typically work with?

_____

2. Name a few types of projects and industries that rely on system safety specialist when developing necessary concepts, designs and products to ensure high reliability and low level of risk!

_____

3. Name several devices and processes that work due to a high degree of reliability?

_____

4.What do system safety specialists review in order to ensure that processes and machines work correctly?

_____

5. Why did system safety develop?

_____

6. What do system safery specialist need to do during following stages:

- design

_____

- testing

_____

7. List some additional activities that system safety specialist have started performing in the last few years!

_____

8. What sort of tools do they use? What are they called? What do they consist of?

_____

9. Name some special areas of knowledge that system safety specialists may need in their work!

_____

10. What sort of knowledge do they combine?

_____

11. What is the employment outlook for system safety specialists in the world? And in Croatia?

_____

II Find the adjectives which go with the following nouns

1. _____ industries
2. _____ background
3. _____ future
4. _____ ladders
5. _____ systems
6. _____ shuttle
7. _____ field
8. _____ or _____ failure

III Find the verbs in the text which go with the following expressions:

1. _____ system faults
2. _____ concepts, designs and products
3. _____ modifications
4. _____ the complexity of something
5. _____ the desired material
6. _____ the need to install something
7. _____ the demands
8. _____ an aptitude for something

IV Insert the right preposition in the following sentences:

1. I decided to specialize _____ electrical equipment and electronics.
2. Once I graduate from the Polytechnic I hope to have an opportunity to advance _____ technical or management career ladders.
3. Do you think the system safety specialist will be _____ demand _____ near future?
4. We have always marveled _____ the complexitiy of these machines.
5. Complex software is used nowadays to manage the controls _____ aircraft and to guide a plane safely _____ the skies.
6. System safety specialist are also called _____ to ensure safe decommissioning of outmoded systems.

V Match the terms from table A with the most appropriate word in table B:

A	B	
1. manufacturing	a) faults	1. _____
2. advanced	b) systems	2. _____
3. control	c) need	3. _____
4. potential	d) knowledge	4. _____
5. redundant	e) methods	5. _____
6. high-tech	f) projects	6. _____

VI Write the opposites of the words writtten in bold:

1. **general** for e.g. knowledge ≠ _____
2. work **correctly** ≠ _____
3. the **desired** material ≠ _____
4. a **minimum** potential for something ≠ _____
5. **outmoded** systems ≠ _____
6. the **failure** of a product ≠ _____

Unit 12

Risk Management

Organizations of all kinds must minimize the adverse effects of accidental losses at the most reasonable cost. To do this, they rely on the knowledge and services of risk managers. Virtually all large organizations, and many smaller ones, maintain a risk management department to reduce the likelihood and size of losses (known as risk control) and to pay for those losses that cannot be prevented (also known as risk finance). Risk management is an integral part of modern organizational management. By protecting a company against loss, the risk manager helps it to boost its operating efficiency and meet its strategic goals.

Risk managers are employed by industrial, service, non-profit and public sector organizations. For example, they serve airlines, banks, chemical and other manufacturers, government agencies, municipalities, retailers, hospitals, school districts and universities.

As organizations differ, so do the types of risks and losses they may encounter. For example, in addition to protecting people, physical premises, and inventory, a retail store risk manager seeks to minimize shoplifting and vandalism. A factory using hazardous equipment or substances is concerned with employee safety and health. It may issue protective clothing and equipment and provide specialized training to employees.

The basic skills required of the risk manager include communications, analysis and problem solving, management and leadership. First and foremost, risk managers must be good communicators. They must be capable of coordinating and interacting with other departments. The position requires regular contact with such departments as auditing, engineering, finance, human resources, legal, research and development, safety and security.

. Risk management also involves working with external sources, such as attorneys, brokers, consultants, insurance agents, insurers and other service providers. In addition to understanding these varied specialties, the risk manager must master the complexities of the organization's own operations.

A sound knowledge of insurance fundamentals and risk financing mechanisms is also essential. The risk manager must know which potential losses can be retained through some form of self-insurance and which risks need to be insured, for how much and with which vendor. They recognize whether claims are being handled properly or not, and if appropriate insurance coverage is available.

The risk manager must also thoroughly grasp loss control issues such as employee health, worker and product safety, property safeguards, security, fire prevention and environmental protection. The risk manager must be able to manage time and people skillfully by setting goals, planning strategies, delegating tasks and forecasting and measuring results.

For a career in risk management, a bachelor's degree with a broad business background is recommended. A major in risk management or insurance is highly desirable. Many additional fields of study are also appropriate, including safety and health, accounting, economics, engineering, finance, law, management and political science. In addition, many firms require candidates to have a master's degree in business administration (MBA) and to earn an Associate in Risk Management (ARM) or other insurance or risk designation.

Risk managers work for corporations, service providers, government administrations and numerous other public and private organizations. Some risk managers join insurance companies, insurance brokerage firms or consulting firms that provide risk management services to clients. The structure of risk management departments varies with the nature and size of the organization.

I Answer the following questions:

1. Who are risk managers? What do they do?

_____

2. Where are they employed?

_____

3. Give some examples of risks depending on the type of organization!

_____

4. What are the basic skills required if you wish to be a risk manager?

_____

5. What are some other areas of knowledge necessary for a successful risk manager?

_____

6. What level of education is recommended for a career in risk management?

_____

7. Who do risk managers work for?

_____

II Find the verbs in the text which go with the following expressions:

1. _____ loss control issues
2. _____ time and people
3. _____ adverse effects
4. _____ and _____ results
5. _____ various types and losses
6. _____ tasks
7. _____ the company's operating efficiency
8. _____ protective clothing and equipment

III Find the words int he text which go with the following nouns:

1. _____ knowledge
2. _____ premises
3. _____ firms
4. _____ effects
5. _____ coverage
6. _____ cost

IV Find the words in the text which correspond to the following definitions and explanations:

1. someone who sells something, but not in a shop, a company or person that sells a particular product or service _____
2. to keep, keep control of, to keep possession of _____
3. middleman, agent _____
4. a person who sells goods to the public in small quantities _____
5. destroying or damaging wilfully or maliciously esp. public property_____
6. an official examination of the financial records of a company to see that they are accurate, to examine something carefully _____
7. basics of something _____
8. student's main subject or course _____

Language work

Present Perfect Simple

Study the following examples. Why is the Present Perfect Simple used in these sentences?

1. There **has been** increased coverage recently in the print and broadcast media about hazardous waste spills and accidents.
2. The need for safety professionals **has continued** to grow in the past few years.
3. In spite of my efforts I **have not had** a very rewarding career.
4. **Have** they ever **tried** to advise management about it?

Positive

I **have seen** many changes in the field of fire protection engineering.

= subject + **have** / **has** + past participle

Negative

She **hasn't completed** the testing at the facility.

= subject + **have** / **has not (haven't / hasn't) + past participle**

Questions

Have they **achieved** their objectives?

= **Have** / **Has** + subject + **past participle**

We use the Present Perfect Simple to talk about

- actions or experiences that happened during a period of time from the past to the present. It is not important or we don't know when they occured.
- personal experiences, especially with **ever** and **never**.

For, since, ago

We use **for** with the present perfect to refer to a period of time.

e.g. She has worked in that company **for** five years.

We use **since** with the present perfect to refer to a point in time.

e.g. We have tested these samples three times **since** this morning.

We use **ago** with the past simple to say when something happened.

e.g. We conducted a reasearch a year **ago**.

Put the verbs in brackets in the correct tense, **Present Perfect Simple** or **Past Simple**.

1. In the last few years, the career opportunities for safety professionals (grow) faster than the number of qualified persons available.

   _____

2. He (have) five years of relevant experience before he successfully (complete) his examinations two months ago.

   _____

3. The increase of worker's compensation costs over the past two decades (lead) to a growing emphasis on safety of workers.

   _____

4. She (go) to the court of law yesterday morning to give expert testimony in a legal case.

   _____

5. - For how long you (work) in the field of safety science?

   _____

   - Well I (graduate) in 2012 and I (work) as a safety engineer since then.

   _____

Unit 13

Loss Control, Loss Prevention, and Risk Control

Loss control, loss prevention, and risk control are terms primarily used in the insurance industry. Insurance companies selling workers' compensation, property, auto, liability, and other forms of business insurance employ safety professionals to conduct risk assessments to support underwriting (business selection and pricing process) and help their clients prevent incidents and accidents that lead to insurance claims.

Each insurance company develops its own process of risk assessment and safety consulting services around the kinds of businesses that it insures. Insurance company safety representatives provide these services to policyholders based on the terms and conditions of the insurance contract and service agreement. The emphasis of this service is the prevention of injuries and illnesses to workers and the public, preventing company vehicle crashes, and avoiding property losses. This reduces costs, benefiting both the policyholder and the insurance company. Consulting strategies typically include identifying and evaluating hazardous exposures, developing plans to control them, and providing follow-up services to assist the customer with successful implementation.

To identify accident exposures, loss control representatives analyze accidents or incident trends, and conduct work site risk assessments to identify potential hazard exposures. Their knowledge, research, and vast database of injury trends across a wide variety of industries and operations help identify potential loss exposures where the exposures may not be evident. The loss control representative then evaluates the exposures and develops recommendations to eliminate or reduce them. Once these recommendations are implemented, the loss control representative follows up to evaluate effectiveness and to determine if more changes might be needed to further reduce the exposure.

Loss control representatives engage in a wide array of consulting activities, such as training employees at all levels on safety, providing industrial hygiene services, developing and evaluating safety programs, investigating incidents, and providing technical advice on ergonomics, construction safety, product safety, environmental safety, fleet safety, and fire protection. Some loss control representatives specialize in these areas.

Another responsibility of insurance safety representatives is to assist the insurance company's underwriting department in evaluating the risk and level of control of the policyholders' operations for specific types of insurance coverage. This responsibility allows the insurance company to select, price, and provide the appropriate coverages for

the business. This involves a continual evaluation of the policyholder's accident rates and exposures, as well as their efforts to reduce the problems identified.

Because clients may be involved in a wide range of business activities, loss control representatives become familiar with many different types of businesses and their associated hazards. The opportunity to specialize in a variety of safety activities, as well as to obtain experience in several types of industries, makes loss control a very rewarding career for safety professionals.

I Answer the following questions:

1. Why do insurance companies employ safety professionals?

   _____

2. What sort of service do insurance company safety representatives provide to their policyholders?

   _____

3. What is their benefit for <u>both</u> the policyholder and the insurance company?

   _____

4. What do consulting strategies typically include?

   _____

5. Try to summerize in a few words what loss control representatives do! What do they analyze and evaluate?

   _____

6. List some consulting activities that loss control representatives engage in!

   _____

7. How do they assist the insurance company's underwriting department?

   _____

8. What makes loss control a very rewarding career?

   _____

II Find the verbs in the text which go with the following expressions:

1. to _____ sevices
2. to _____ experience
3. to _____ exposure
4. to _____ recommendations

5. to _____ a continual evaluation

III Find the adjectives in the text which go with the following nouns:

1. _____ variety of industries
2. _____ exposure(s)
3. _____ coverage
4. _____ claims
5. _____ services
6. _____ database

IV Turn the following verbs into nouns and then use them in a senetence of your own**:**

1. to cover _____

   _____

2. to recommend _____

   _____

3. to price _____

   _____

4. to compensate _____

   _____

5. to emphasize _____

   _____

V Write the synonym of the following verbs:

1. to assist _____
2. to select _____
3. to avoid _____
4. to engage in _____
5. to be involved in _____
6. to employ _____

VI Find the expressions in the text which correspond to the follwing explanations:

1. to sign and accept liability under insurance policy; undertake to finance or support

   _____

2. general direction and tendency; inclination, movement _____

3. being legally bound, to be under an obligation to, in plural - debts for which one is bound _____

4. procedure or contract securing compensation for loss, damage, injury, or death on payment of premium _____

5. seek information or advice from, talk things over with someone _____

Unit 14

Chemical Process Safety

Many of the modern materials and essential products we take for granted everyday are made possible by the chemical industry. Fuels, food ingredients, pharmaceuticals, textiles, paper products, plastics and industrial chemicals are some chemical industry products. Each chemical product involves a very different chemical process, which is one of the reasons why the chemical industry is very dynamic. Each process has its own starting materials, processing equipment and operating temperatures and pressures - because of this, each process has a unique set of hazards.

While manufacturing chemical products, it is the responsibility of the chemical manufacturer to maintain a safe working environment for employees and a safe environment for the people and communities surrounding their plants. The chemical process safety professional plays a key role in this responsibility.

Chemical process safety involves analyzing chemical processes to identify the potential for accidents. It also involves planning for the control of unexpected releases and reactions to avoid catastrophic losses. This is done so that chemical companies can act to prevent these accidents, and so that nearby communities can respond appropriately to incidents. And if they should happen, the companies and emergency response organizations are better prepared to handle the consequences. Contingency planning also helps companies recover quickly and continue a reliable supply of vital products to the marketplace.

This discipline can be broken into four general areas: assessment, technical support, training and management. It is the job of chemical process safety professionals to assess a chemical process in order to identify potential hazards. They also provide technical support to those who design new processes, and those who operate existing processes, so that they can be aware of process hazards and take steps to prevent chemical accidents from occurring. Chemical process safety also involves training employees who work with the processes on how to recognize chemical hazards, and prevent or respond to accidents.

These safety professionals may also become involved in process safety management. This means that they coordinate a company's safety efforts and work with other managers to help chemical process safety become more efficient and effective.

Chemical process safety is still a fairly new field. Its modern version began in the early 1970s. It gained momentum in 1984 after a chemical process disaster in Bhopal, India resulted in the death of thousands of citizens.

Because this profession is so new, practitioners entering the field still have an opportunity to truly impact and shape the future of the discipline. Much progress has been made within the last few years, but much more progress will occur in the near future. Students entering the field now can be a part of this development.

Chemical process safety benefits industry by preventing the types of accidents that otherwise make the headlines and damage the environment, destroy chemical processing plants, and cause serious injuries to employees. Chemical process safety benefits society by reducing the possibility of hazardous chemical releases upon communities or the environment. It also helps the chemical industry to find ways to safely manufacture the products that are in demand by modern society.

In summary, chemical process safety is a good career area to consider because it provides many benefits to industry and to society and offers many job opportunities, both technical and managerial. It also will be rewarding to the person who chooses to enter this safety related specialty.

I Answer the following questions:

1. List several chemical industry products!

_____

2. What makes the chemical industry so very dynamic? Explain!

_____

3. What is important to ensure in manufacturing chemical products?

_____

4. What does chemical process safety involve?

_____

5. Why is contingency planning important?

_____

6. What are four general area that chemical process safety can be divided into?

_____

7. Name some other activities that chemical process safety may be involved with!

_____

8. Why is chemical process safety considered still a fairly new field?

_____

9. Why is this profession so promising? How can you contribute to its development if you decide to enter this field of safety science?

_____

10. How does the following areas benefit from chemical process safety:
    - industry, and chemical industry in particular,
    - society?

_____

_____

II Write the opposites of the following words:

1. dynamic ≠ _____
2. industrial ≠ _____
3. effective ≠ _____
4. modern ≠ _____
5. essential ≠ _____

III Find in the text the adjectives which go with the following nouns:

1. _____ and _____ opportunities
2. _____ ingredients
3. _____ releases and reactions
4. _____ efforts
5. _____ materials

IV Write the correct form of the words in brackets:

1. Hazardous chemical _____ (to release) pollute the environment and _____ (danger) human health.
2. When an accident occurs _____ (emergency) response is of vital importance.
3. Chemical process safety _____ (involvement) analyzing chemical processes to identify the potential for accidents.
4. It is also necessary to _____ (training) employees who work with the processes so that they can recognize chemical hazards, prevent them if possible and if they happen, _____ (response) to accidents.
5. After having suffered _____ (catastrophy) losses they decided to do something about it.
6. If you are looking for a good and promising career in a field where you can _____

(true) impact and shape its future development, you should try _____ (chemistry) process safety.

V Find the words in the text which correspond to the following explanations:

1. capable of coming into being, likely, possible, probable _____
2. event that may or may not occur, something dependent on another uncertain event _____
3. something that is wanted _____
4. heading at top of page, newspaper article, etc., in plural it means summary of broadcast news _____
5. a group of people living in one place or having same religion, ethnic origin, profession, etc. _____
6. quantity of motion of moving body, the product of its mass and velocity; impetus gained by movement or initial effort _____

Language work

Defining relative clauses

We can define people or things with a defining relative clause. We use the relative pronoun **who** to refer to a person. We can also use **that**.
e.g. An industrial hygienist is a person **who**/**that** is trained to recognize health hazards.

We use the relative pronoun **which** or **that** to refer to a thing, but not a person.
e.g. They analyze software for potential faults **which**/**that** can cause harm to people or the systems.

Relative pronouns can be left out when they are the object of the relative clause.
e.g. This is the kind of work (**which**/**that)** I'd like to do one day after I complete my examinations.

Complete the sentences below with suitable relative prounouns. Give alternative options if possible and put brackets round the relative pronoun you can leave out.

1. The efforts _____ are being made all across the country have given good results.
2. Ergonomics is a knowledge area of safety science _____ helps people improve the workplace.
3. A fire protection engineer is a person _____ uses the basic tools of engineering and science to help protect people and property from fire.
4. Here's the project _____ you gave me last week.
5. Environmental safety is the area of safety science _____ I 'd like to specilize in.
6. Yesterday I met Mr. Jones _____ attended our course in science 2 months ago.

Unit 15

Construction Safety .

Construction sites are as different from one another as are people. They vary in size from small road repair jobs and building renovations to the construction of huge skyscrapers, enormous bridges and massive power plants. But they have at least one thing in common: large pieces of equipment, tons of structural materials and dangerous heights which create safety and health hazards that can take a life in the blink of an eye. They also require the presence of construction workers, whose health and well-being depend on the effectiveness of hazard control programs designed by construction safety professionals.

Construction safety professionals recognize and control a wide variety of safety, health and fire hazards in unique and ever-changing work environments. The need for construction safety professionals continues to expand since construction is one of the most hazardous industries.

A construction safety practitioner could be employed by a medium to large construction company, a contractor trade organization, an organized labor group, a government agency, an insurance company, an engineering firm or a consulting firm.

An undergraduate degree in safety combined with general construction management courses or construction experience will help individuals begin a career in this specialty. Working for a large construction company will generally require periodic relocation or frequent travel to project sites. Many large construction companies also operate outside the U.S. With the expansion of the global construction market, the need for construction safety professionals at sites outside the U.S. will increase.

Eight-hour days are normal for safety professionals employed in the construction industry But weather conditions, performance and completion deadlines frequently dictate extended work hours.

A large construction workplace is typically supervised by a management/engineering company that employs a general contractor (GC) to erect, renovate or demolish a structure. The GC then employs and schedules the necessary specialty contractors, such as excavation, steel erection, masonry, mechanicals, roofing, carpentry, painters and others, to perform specified tasks. Large projects could have ten or more subcontractors working at one site at the same time.

Because construction site organizations vary, a construction safety professional must possess the ability to communicate effectively within an organization having a variety of management styles and a diverse work force.

Construction methods, equipment, working conditions and materials continually change on a construction site. Through weekly or monthly work planning sessions and continuous monitoring of job sites and work groups, safety professionals can identify hazards early and ensure that controls for them are in place as each kind of work begins.

If you enjoy fast-paced activities, constant daily challenges outdoors, hands-on working conditions, and minimal time working at a desk, you are likely to enjoy working in construction safety. If you can work effectively with a variety of tradespeople, you will appreciate the financial and personal rewards associated with good hard work and will do well as a safety professional in the construction industry.

I Answer the following questions:

1. Give some examples of different construction sites!

   _____

2. What do they all have in common in spite of the differences?

   _____

3. What do health and well-being of construction workers depend on?

   _____

4. What do construction safety professionals recognize and control?

   _____

5. Why does the need for them continue to expand?

   _____

6. Where can construction safety practitioners work? In what kind of companies and organizations?

   _____

7. What can you expect if you work for a large construction company? In your opinion is it an advantage or a disadvanage? Explain!

   _____

8. In which cases would you be expected to work extended hours?

   _____

9. Who is a general contractor? What is his/her job?

_____

10. Why is important for a construction safety professional to be a good communicator?

_____

11. How can safety professionals identify hazards early and in that way control them more easily?

_____

12. What sort of person would be likely to enjoy working in construction safety?

_____

II Are the following sentences true or false? Correct the false ones! For correct ones just put a tick!

1. Construction sites do not differ from one another. _____
2. Construction sites have only one thing in common and that is tons of structural materials.

_____

3. Many large US construction companies also operate around the world.

_____

4. Construction safety professionals recognize and control a narrow field of safety, health and fire hazards. _____
5. If you don't like sedentary work, and you enjoy daily challenges of an outdoor and dynamic work, you should consider working as a construction safety professional.

_____

III Match terms from table A with the most appropriate word in table B:

A	B	
1. weather	a) market	1. _____
2. repair	b) jobs	2. _____
3. fast-paced a	c) monitoring	3. _____
4. global	d) work force	4. _____
5. continuous	e) conditions	5. _____
6. diverse	f) activities	6. _____

IV Find the verbs int he text which go with the following expressions:

1. to _____ the ability to communicate
2. to _____ the financial and personal rewards
3. to _____, _____ or _____ a structure.
4. to _____ and _____ specialty contractors
5. to _____ a career
6. to _____ a construction workplace

V Find the words/expressions in the text which correspond to the following:

1. including a lot of different things happening quickly
   _____
2. very quickly, within a very short period of time
   _____
3. the activity of making things from wood or repairing things that are made of wood _____
4. it is an experience or training that involves you doing something rather than reading about it or watching other people do it
   _____
5. a specific time or date by which you have to do something
   _____

Unit 16

Institutional Safety Management

A career in institutional safety can present a variety of exciting and rewarding challenges. Institutional safety typically encompasses hazard control in organizations such as hospitals, correctional facilities (prisons and jails), research facilities or schools at all levels.

Hospitals, correctional facilities and universities are typically large employers and are often part of large organizations. This presents the trained safety professional with the opportunity for career enhancement and growth.

Hospitals and nursing homes face a wide range of government and industry regulations. For example, the Joint Commission on Accreditation of Healthcare Organizations has numerous self-regulating standards, including safety standards, for the industry. National fire and building codes for hospitals and nursing homes have many safety provisions and become law when adopted by federal, state and local government. In addition, OSHA and EPA regulations affect this industry, as well.

The hospital safety professional also has the unique opportunity to work with people from diverse backgrounds and interests. A hospital provides a wide array of experience, from the surgeon who is concerned about exposing employees to an infectious plume during laser surgery and the nursing supervisor attempting to prevent back injuries while handling patients, to the laboratory technicians seeking to control the emission of chemicals used in preparing tissue samples. The hospital safety professional must constantly assess the environment, seeking methods to minimize hazards that could result in injury or loss.

Colleges and universities have safety professionals who help protect students, faculty and staff from harm during laboratory classes and research projects. They manage risks for maintenance, food service and office employees.They handle the disposal of chemicals and other hazardous materials used in laboratory work or in maintenance of building and grounds.They deal with campus traffic safety and other risks.

One of the major concerns for the institutional safety professional is fire prevention and suppression. Whether it's a hospital, where many of the patients are unable to walk, a university dormitory, or a correctional facility, where the inmates'safety has to be balanced against the need for confinement, the safety professional must continually assess the environment, and look for ways to prevent fires.

Many institutions maintain state-of-the-art fire detection and suppression systems, which the safety professional will help to design and maintain. Employees must also be highly

trained in procedures for suppressing fires, and recovering from them, all the while minimizing any possible disruptions to service.

Institutional safety professionals must have a true generalist's background, with training in occupational safety, fire safety, industrial hygiene, chemical safety, radiation safety and ergonomics. Employers are looking for candidates who have attained a minimum of a bachelor's in safety. Employers are also increasingly seeking Certified Safety Professionals (CSPs).

The long-term outlook for professionals specializing in institutional safety looks promising. With the onset of managed care and competition in health care, hospital administrators are realizing that to succeed, they must manage extremely efficient operations. Safety has been integrated as a key management strategy aimed at reducing losses and claims. As a result, the safety professional has been teamed with other key hospital administrators whose function is to manage risk. Safety professionals are also moving into management roles in correctional facilities and universities as these organizations seek to control their risks more effectively.

I Answer the following questions:

1. What does institutional safety typically encompass?

   _____

2. Name some governemnt and industry regulations that hospitals and nursing homes have to comply with?

   _____

3. What are some of the tasks a hospital safety professional performs?

   _____

4. How do safety professionals help protect students and ensure safe environment?

   _____

5. What activites do safety professionals carry out in fire prevention?

   _____

6. What kind of knowledge do institutional safety professionals need to have?

   _____

7. Explain why does employment outlook for professionals specializing in institutional safety look promising?

   _____

8. Do we have institutional safety professional in Croatia? What are their tasks?

_____

9. Can you compare some of the tasks performed by institutional safety professionals in the US and similar jobs in our country?

_____

10. Would you be interested in specializing in any of the areas mentioned in the text? Which one? Explain your choice!

_____

II Put the right preposition in the gaps in the following sentences:

1. We are developing the company's strategy that is aimed _____ increasing the number of certified professionals specialized _____ institutional safety.
2. Employers should be concerned _____ their workers' health and safety.
3. What do you have to be trained _____ if you wish to work in that field?
4. If you work _____ people good communication skills are essential.
5. Chemical used _____ preparing some tissue samples can be potentially very dangerous _____ human health.
6. When making some important decisions your personal interests have to be balanced _____ the interests of other people around you.

III Turn the following nouns into verbs:

1. emission _____
2. accreditation _____
3. suppression _____
4. disruption _____
5. sample _____

IV Match terms from table A with the most appropriate word(s) in table B:

A	B	
1. to look	a) a wide array of something	1. _____
2. to seek	b) career	2. _____
3. to enhance	c) methods	3. _____
4. to handle	d) promising	4. _____
5. to provide	e) a challenge	5. _____
6. to present	f) the disposal of toxic substances	6. _____

V Find the adjectives in the text that describe the following nouns:

1. _____ facilities
2. _____ dormitory
3. _____ roles
4. _____ opportunity
5. _____ enhancement
6. _____ operations

VI Find the words/expressions in the text which correspond to the following:

1. the beginning of something, especially something bad, impetuous beginning; attack

   _____

2. a situation in which someone is forced to stay in a place, especially a prison, and not allowed to leave

   _____

3. the substance that animal and plant cells are made of; disposable piece of thin absorbent paper for wiping, drying etc.

   _____

4. to succeed in achieving something, especially after a lot of effort; to reach a particular age, amount, or level

   _____

5. a medical treatment in which a doctor cuts open someone's body; manual or instrumental treatment of injuries or disorders of body

   _____

6. infecting, transmissible by infection, apt to spread, contagious, catching

   _____

Language work

Past Perfect Simple

Study the following examples. Why is the Past Perfect Simple used in these sentences?
He **had studied** the problem carefully before he started designing hazard control programme.
Before they evaluated the potential hazard exposures, loss control representatives **had conducted** surveys of the work site.

Positive

I **had designed** equipment.

= subject + **had** + past participle

Negative

We **hadn't seen** him since the accident.

= subject + **had not (hadn't) + past participle**

Questions

Had they **developed** their own process of risk assessment?

= **Had** + subject + **past participle**

We use the Past Perfect Simple if we are already talking about the past, to go back to an earlier past time, i.e. to talk about things that *had already happened* at the time we are talking about.

Put the verbs in brackets in the correct tense, **Past Perfect Simple** or **Past Simple**.

1. After he (observe) work activities and (identify) hazards, he (try) to formulate plans to prevent these hazards. _____
   _____
2. They (investigate) fires and explosions that (occur) several weeks earlier.
   _____
3. She (become) interested in the safety profession through some friends who (gain) success in safety.
   _____
4. After John (complete) his master's degree, he (work) as a loss control consultant for an insurance company.
   _____

Unit 17

Safety Research & Risk Assessment

As with any discipline, the body of knowledge that guides the science and practice of safety continues to grow. Much of what is regarded as good theory and practice was discovered by practitioners through trial and error, or was simply borrowed from related disciplines. Relying on these traditional methods is changing, because more people are entering the profession with formal academic training.

Undergraduate and graduate educations are exposing professionals to the subtleties of research questions and methodology. This heightened awareness, in turn, produces a demand for better research-based knowledge as these educated professionals go about their duties. The demand for more sophisticated research is being met by several different groups of researchers.

Much research is performed by government agencies such as the National Institute for Occupational Safety and Health (NIOSH) or the Environmental Protection Agency (EPA). These agencies, as well as other organizations, also fund research projects that are carried out at universities and private research organizations. For example, the American Society of Safety Engineers Foundation is one professional organization that sponsors safety research projects. Large companies often fund research which benefits their own safety functions, products or services.

Actual research topics can fall into several broad areas. Much research is performed in technical areas, such as the design and reliability of safety equipment, ergonomics or fire safety. Other research promotes the understanding of management theory and practices applied to safety. A third area of research is in the decision sciences, where questions involving risk assessment and policy analysis techniques are explored. Another area of study involves how well hazard controls work.

Those interested in pursuing a career in safety research will need a strong academic background (master's or doctorate degree) combined with practical experience in safety. Research specialists usually work for government agencies with a research responsibility, at large universities or in company sponsored laboratories. There are also a few industry sponsored laboratories, such as Underwriters Laboratories (UL), Factory Mutual (FM), the Insurance Institute for Highway Safety and the Liberty Mutual Insurance Research Center.

I Answer the following questions:

1. What is good theory and practice often result of?

_____

2. What are some benefits of undergraduate and graduate studies for educated professionals?

_____

3. How are research projects funded and where are they carried out?

_____

4. Name several broad areas that actual research topics can be divided into!

_____

5. What do those interested in pursuing a career in safety research need to have?

_____

II Form adjectives from the following nouns:

1. science _____
2. government _____
3. reliability _____
4. height _____
5. awareness _____
6. technique _____

III Write the opposites of the following:

1.strong ≠ _____

2. private ≠ _____

3. responsible ≠ _____

4. formal ≠ _____

5. sophisticated ≠ _____

IV Match the terms from table A with the most appropriate word in table B:

A	B	
1. research	a) methods	1. _____
2. traditional	b) background	2. _____
3. broad	c) disciplines	3. _____
4. highway	d) safety	4. _____
5. academic	e) areas	5. _____
6. related	f) topics	6. _____

V Put the words in brackets into the correct form:

1. Undergraduate and graduate educations _____ (exposure) professionals to the subtleties of research questions and methodology.
2. The design and _____ (reliable) of safety equipment is an important area of research.
3. There is a constant demand for professionals who would have a better research-based _____ (to know).
4. Some researches _____ (promotion) the understanding of management theory and practices applied to safety.

VI Find the words in the text which correspond to the following:

1. a person or business that pays money to support an event, radio, or television programme, wesite etc. as a way to advertise their products or services

   _____

2. to do something that you normally do in your usual way; to start dealing with a problem, a situation, or job in a particular way

   _____

3. the methods and principles used for doing a particular kind of work, especially scientific or academic research

   _____

4. to support or encourage something, to help something to develop; to move someone to a job at a higher level

   _____

5. the practice of making people obey rules of behaviour and punishing them if they do not; a subject that people study, especially at a university, branch of learning

   _____

6. to show someone which direction they should walk or travel in by going with them; to help someone to make decisions or judgements about something; to try to make a situation or an organization develop in a particular way

   _____

Language work

Future Tenses

Study the following examples. Why is the Future Simple used in these sentences?

The system safety specialists **will have** opportunities to advance through technical career ladders.

The need for safety professionals **will not diminish** in the near future.

I think it **will be** a rewarding career.

Positive

I / We **shall** /**will** fund research projects in the field of ergonomics.

You / He / She/ It / They **will** maintain a safe working environment.

= subject + **will / shall** + infinitive

Negative

These mesaures **will not** increase protection for our environment.

= subject + **will not** (**won't**) + infinitive

Questions

Will he provide the necessary technical support?

= (question word +) **will** + subject + infinitive

We use the **Future Simple**

• to make predictions when you don't have present evidence that something will happen

• to talk about hopes and promises, especially with the words *expect*, *think, hope* and *probably.*

• to describe an instant decision

• to talk about facts that will inevitably happen

We use **be going to** + verb

• to describe future intentions

• to make predictions when you have present evidence that something is going to happen.

Put the verbs in brackets in the correct tense, **Future Simple** or **going to future**.

1. If you decide to work as a safety profesionals you (feel) a great deal of satisfaction from preventing harm.

   _____

2. I (work) part-time this summer to get some work experience. I hope this (increase) my employment opportunities.

   _____-

3. While in her current position, Mary (pursue) a doctoral degree that (qualify) her as a safety educator.

   _____-

4. He soon (oversee) the work of two safety officers and the plant fire and rescue department.

   _____

Part Three

Profiles of Safety Professionals

This section contains career summaries of selected individuals in the safety profession.
The profiles provide a cross section of career options and illustrate advancement opportunities. The profiles represent three groups: early career level (a person in their first decade of practice), mid-career level (10 to 15 years of practice), and senior career level (20 or more years of practice). Some also represent specialty practice areas discussed in the previous section.

Unit 18

EARLY CAREER LEVEL

Justin B. Walker

Justin Walker learned about the safety profession through a friend in the safety program at West Virginia University. After earning a bachelor's in business at WVU, Mr. Walker pursued a master's degree in safety management.

After graduating, Mr. Walker was hired by The Hartford Financial Services Group - one of the largest investment and insurance companies in the U.S. He finds that getting to meet people and to help them make their workplaces safer and more efficient to be most rewarding in his current position. During his academic training, Mr Walker was involved in WVU's ASSE student chapter and served as Vice President. Upon graduation, he earned the Graduate Safety Practitioner (GSP) designation from the Board of Certified Safety Professionals (BCSP).

Degrees:

• BS, Business Management, 2003, West Virginia University

• MS, Safety Management, 2006, West Virginia University

Time in Safety Profession: one and a half months

Current Position: Loss Control Trainee, The Hartford

Memberships: American Society of Safety Engineers

Certifications: Certified Hazard Control Manager (CHCM)

I Summerize in a few sentences Justin Walker's professional career. Use the following hints:

- how and when did he learn about safety profession
- where did he work after he completed his studies
- what does he like most about his job
- what additional activities did he carry out during his academic training
- is he a member of some association and which ones
- does he hold any certifications

_____

_____

_____

_____

_____

II Put the right prepostion in the gaps in the following sentences:

1. - How did you learn _____ this programme?
   - I learned it _____ a friend of mine who was already studying safety at work.
2. During her studies she was involved _____ various activities related to safety of workers.
3. He was afraid he might not be able to find a job after finishing school, but he was hired very soon _____ a very large and successful company.
4. She earned a bachelor's degree _____ safety management last year.

III Match terms from table A with the most appropriate word in table B:

A	B	
1. to pursue	a) position	1. _____
2. current	b) training	2. _____
3. investment	c) engineer	3. _____
4. student	d) company	4. _____
5. academic	e) a degree	5. _____
6. safety	f) chapter	6. _____

IV Find the words in the text which correspond to the following:

1. happening or existing now; in general circulation or use, general tendency or course _____
2. follow with intent to overtake, capture, or harm; proceed along; engage in (study etc.); carry out (plan, etc.) _____
3. one of the sections into which a book is divided; a local club or organization that is part of a much larger club or organization _____
4. a name or title; the act od choosing someone or something for a particular purpose _____
5. someone who is training for a particular profession or job _____
6. a group of people who have the responsibility of managing important business or government activities; the most important people in a company, who make decisions about the way that the company is managed _____

V Write a similar text about yourself. Since you have not completed your studies yet and you probably do not work in safety, you can use some information from the text on Justin B. Walker, change it, adapt it or simply come up with something different.

_____

_____

_____

_____

_____

_____

_____

Unit 19

MID-CAREER LEVEL

Jessica Bohan

Jessica Bohan found out about safety through a sibling. Her older sister is a Certified Industrial Hygienist. Ms. Bohan found her sister's career to be exciting - she was always helping people and held a good job in private industry.

Even though Ms. Bohan was not armed with a safety degree, she became more involved with safety through her work. She began her career in environmental health and safety for the local public health department. Here, she designed septic systems, inspected public pools, investigated foodbourne complaints, and childcare facilities. She also inspected migrant labor camps for compliance with OSHA regulations. She found she could make a positive difference in people's lives working in the agriculture industry.

She began researching regulations for the different industries and took every safety class she could. She also attended safety and health professional conferences and meetings and networked with others in safety.

Ms. Bohan also worked for the State of Florida Division of Safety in the Public Sector Enforcement Program. She currently works as a consultant with the OSHA Consultation

Program - a fun and challenging job. Ms. Bohan believes that communication skills are the key to success in safety. Being a good listener is very important. Many times you have to motivate people to want to increase their safety performance. Being able to understand where they are coming from and to connect with them is essential to enhancing the safety and health efforts of a company and the employees. Also, presenting safety and health deficiencies in a positive, challenging way is imperative. She also feels that continuous learning is an absolute must. Never stop challenging yourself to learn more, because the safety and health field is constantly changing. Ms. Bohan recommends taking formal classes, attending seminars, reading safety articles and publications, and meeting with other safety and health professionals - excellent sources of information. One of the greatest benefits of Ms Bohan's job is working with a variety of businesses with unique products and processes and to see them experience success in safety and health (e.g., better injury data or cost savings due to reduced workers' compensation costs). The biggest reward has been testimonials from employees whose lives have been positively impacted or saved by the changes made in safety and health to make their workplace safer

Degrees:

BS, Social Science (Geology Minor), 1993, Florida State University

Time in Safety Profession: 10 years

Current Position: Safety and Health Compliance Specialist, University of South Florida, OSHA Consultation Program

Memberships:
- American Society of Safety Engineers
- National Association for Women in Construction

Certifications:
- Certified Safety Professional
- Certified Utility Safety Administrator
- Occupational Health and Safety Technologist

I Answer the following questions:

1. How did Jessica Bohan find out about safety?

_____

2. Describe the beginning of Ms Bohan career! What did she do?

_____

3. What did she attend in order to enhance her knowledge?

_____

4. Where does she currently work? Does she like the job?

_____

5. In her opinion what is the key to success in safety? Why?

_____

6. How does she feel about continuous learning? Can you explain her reasons for it?

_____

7. What does Ms Bohan recommend to all those working in safety and health field?

_____

8. What does she consider to be the biggest reward in her job?

_____

II Use an online dictionary and find all the **verbs** that can be used with the noun **'complaint'**

_____ a complaint

_____

_____

_____

III Find the verbs in the text which go with the following:

1. _____ somebody's life
2. _____ efforts
3. _____ septic systems
4. _____ labor camps
5. _____ deficiencies
6. _____ seminars, classes

IV Find the words in the text which correspond to the following:

1. a formal statement about someone's quality and character, usually provided by an employer; gift presented as mark of esteem

   _____

2. a specialist in the promotion of clean conditions for the preservation of health, for e.g. an industrial ~ _____
3. someone who travels to another country in order to find work; a bird or animal who travels to a different part of the world for warmer weather at a particular time of the year

   _____

4. another word for your brothers and sisters _____
5. (of a disease) carried by or transmitted through contaminated food _____

   _____

6. the job of looking after children, especially while their parents are working, it refers to looking after children but also to the facilities which help parents to do so

   _____

Unit 20

SENIOR CAREER LEVEL

Jan Simon Clark

Jan Simon Clark can recall an interest in safety as early as high school. As a reporter for her school newspaper, she wrote several investigative articles on fire safety issues.

Ms. Simon Clark originally sought out a chemistry degree, but changed her major to chemical engineering and landed at Texas A&M. Here, after two semesters of class work and one semester as a co-op chemical engineer with a major chemical company, she decided to pursue a degree that would allow more interaction with people. She stumbled across safety when researching various engineering curriculums. Upon talking to two major professors in the Safety Engineering Department, Ms. Simon Clark realized safety was her calling - a mixture of chemistry, engineering, and interaction with people. During Ms. Simon Clark' s career as a safety professional, she has worked for an oil/gas company, a chemical company, as a consultant, and for a pipeline company. She has had the opportunity to work in the oil field, both onshore and offshore, to work inside a chemical plant and refineries, to conduct industrial hygiene monitoring at fiberglass pipe manufacturing facilities, to serve as the Evidence Coordinator for a major multiple fatality incident investigation, to serve as the on-site Health & Safety Officer at an environmental remediation site (removing contaminated soil from a housing project without relocating residents), and to go to Guantanamo Bay Naval Air Station.

In addition to honing her professional safety and health skills, Ms. Simon Clark has been able to develop project management skills and learned how to "sell" safety to top management.

Ms. Simon Clark has been heavily involved with professional societies (AIHA and ASSE), serving as various officers. Diversity, working for varied employees and gaining experience in a wide range of industries and operations, and having several mentors have been the keys to Ms. Simon Clark's success as a safety professional.

Throughout her career, ensuring that employees leave the work site every day in the same condition as they arrived, from both a health and safety standpoint, has been a guiding principle for this safety professional.

Ms. Simon Clark offers the following advice to those considering a career in the safety profession: gain as much experience as possible in diverse workplaces or situations early in your career, become certified in whichever aspect of safety and health you pursue, and give

back to your profession through active involvement in professional societies. It's also important to support scholarships for students pursuing safety and health degrees.

Degrees: •BS, Safety Engineering, 1985, Texas A&M University
•MS, Industrial Hygiene, 1989, Texas A&M University

Time in Safety Profession: 21 years

Current Position: Risk Specialist, Chevron Pipe Line Company

Memberships: • American Industrial Hygiene Association
• American Society of Safety Engineers Certifications:
• Certified Industrial Hygienist
• Certified Safety Professional

I Answer the following questions:

1. When did Jan Simon Clark first become interested in safety?

_____

2. What did she study initially ? Why did she change her major?

_____

3. How and when did she realize safety was her calling?

_____

4. Name different places she has worked so far!

_____

5. What does it mean that Jan Simon Clark learned how to "sell" safety to top management?

_____

6. What has been her guiding principle?

_____

7. List some pieces of advice she offers to those considering a career in the safety profession!

_____

II Find in the text the adjectives derived from the following nouns:

1. investigation _____
2. possibility _____
3. multiplicity _____
4. guide _____

5. diversity _____

6. environment _____

III Find the verbs in the text which are used

- to describe what Jan Simon Clark did in various companies and/or facilities:

  _____ _____

  _____ _____

- to describe her acquiring additional knowledge, practice and skills:

  _____ _____

  _____ _____

IV Find the words in the text which correspond to the following:

1. an experienced person who advises and helps somebody with less experience over a period of time, especially in their job _____
2. an amount of money given to somebody by an organization to help pay for their education _____
3. to make (something) impure by exposure to or addition of a poisonous or polluting substance _____
4. bring (a fact, event, or situation) back into one's mind; remember; to cause one to remember or think of; officially order (someone) to return to a place. _____ _____
5. to miss one's step in walking or running; trip and almost fall; to make a mistake or mistakes; blunder; to come upon accidentally or unexpectedly _____ _____
6. the fact that something contains many very different elements, a range of things which are very different from each other, variety _____ _____

Applying for a job

I Study this model CV

Curriculum vitae

Personal information

Name: Rebecca Wagner

Address: 2064 Metz Lane,
San Diego, CA 92111

Telephone: (+123)-634-5443

Email: rebeccawagner@hotmail.com

Date of birth: 22.03. 1984

Work experience

Dates	September 2006 - present
Employer	U.S. Department of Labor, Occupational Safety and Health Administration
Position held	Occupational Health and Safety Compliance Officer
Main activities and responsibilities	Providing support and technical assistance, emergency planning and response, industrial hygiene, security and training

Education and training

Dates	September 2002 – August 2006
Organization	Southeastern Oklahoma State University, Durant. OK
Qualification	BS, Occupational Health and Safety MS, Occupational Health and Safety (Industrial Hygiene emphasis)
Main subjects / skills covered	a safety degree program, gaining insights into safety practice, inspecting workplaces, developing leadership skills ASSE Foundation scholarship recipient

Personal skills and competences

Mother tongue	English – excellent communicator
Other languages	Good spoken Spanish, some French
Social skills	My job involves working and communicating with all levels of people – from managers to workers, I have good communication skills. I work well under pressure.
Organizational skills	My work also involes organizing training/courses in basic hazard recognition in specific fields
Technical skills and competences	Familiar with most current operating systems, Novell, and Windows networks
Additional information	Driving licence Personal interests include cycling, travelling

II Now read this job advertismenet for a **Health and Safety Supervisor**

POSITION PROFILE

Responsible for supporting in the implementation and administration of the Company's health & safety policies, standards, and safety management initiatives. Work closely with front-line employees to coach safe work practices, empower employees to promote safety, and build value in the Loss Prevention System.

JOB DUTIES AND RESPONSIBILITIES.

Monitor and advise on Company safety policies, procedures, and programs to safeguard personnel and property.

Supports initiatives of Health & Safety Manager.

Conduct field observations and compliance assessments aimed at identifying potential risks and compliance with the Ricoh Corporate Safety Policies and provide follow-up communications with the appropriate operating units.

Conduct Loss Prevention Observations (LPOs) at the rate prescribed by the customer. At least 1 LPO for every 400 hours worked.

Coach front-line employees on behavior-based safety process, and drive employee participation.
Participate in root cause analysis and review of all incidents/near-incidents with local management and within Risk Department.

Assist operational leaders to identify and resolve safety issues and comply with OSHA regulations.

Develop content and conduct employee safety meetings that are relevant and engaging. Performs other duties as assigned.

QUALIFICATIONS (Education, Experience, and Certifications)

1 to 3+ years of related experience preferred.

Safety-related experience conducting safety meetings, and coaching safe work practices.

A strong business acumen that includes the ability to work with all levels of operating units Experience in a behavior-based safety environment.

Experience using and/or developing JSAs.

Ricoh is an EEO/Affirmative Action Employer Minorities /Women/ Protected Veterans / Disabled.

III Rebecca Wagner is interested in applying for a Health and Safety Supervisor. Use her curriculum vitae to write a letter of application. Follow these steps:

Paragraph one: reason for writing *I am writing to apply for the position of ...*

Paragraph two: education and training *I graduated in (date) ...*

	I completed a course in ...
Paragraph three: work experience	*For the past X years I have been ....* *Since X I have been...*
Paragraph four: personal skills	*I spent X months in (country) ..., so I have knowledge of (foreign kanguages)* *I can ...*
Paragraph five:	
reasons why you are applying for this job	*I now feel ready to :::: and would welcome the opportunity to ...*
Paragraph six:	
closing / availability for interview	*I enclose ...* *I look forward to ...* *I will be available for an interview ...*

_____

_____

_____

_____

_____

English - Croatian Dictionary

Englesko – hrvatski rječnik

Popis kratica

koje su upotrijebljene u ovom Rječniku

(Abbreviations used in the Dictionary)

adj	*adjective*	pridjev
coll	*colloquial*	koji se upotrebljava u običnom govoru
com	*commercial*	komercijalni, trgovački
esp	*especially*	osobito
fig	*figurative(ly)*	u prenesenom značenju
jur	*jurisprudence*	pravo
p	*person*	osoba
prep	*preposition*	prijedlog
s	*substantive*	imenica
th	*thing*	stvar
univ	*university*	sveučilište
US	*United States*	Sjedinjene Američke Države
v	*verb*	glagol

A

academic *adj* akademski, učen, znanstven; teorijski; član sveučilišta, član akademije

accidental *adj* slučajan, nehotičan, nebitan, sporedan

accomplishment *s* ispunjenje, izvođenje, izvršenje; (duševno i tjelesno) usavršenje

accomplish *v* ispuniti,obaviti, izvršiti, izvesti, provesti

account for *phrasal v* obrazložiti, objasniti; odgovarati, snositi odgovornost; dati obračun, polagati račun

accounting *s* računovodstvo

accredit *v* (used with object) pripisivati komu što **(to ~ a p with a th)**; vjerovati čemu, poklanjati vjeru; akreditirati koga (kao poslanika)

- **accreditation**, *s*

accurate *adj* točan, uredan, brižljiv; ispravan, precizan, besprijekoran

acumen *s* oštroumnost, bistrina, pronicavost

adapt *v* prilagoditi, udesiti, urediti; promijeniti, preraditi, obraditi

adaptation *s* prilagođavanje, podešavanje, preradba, adaptacija

administer *v* upravljati, rukovati; dati (lijek); primijeniti, upotrijebiti; izvršavati

advance *v* napredovati, krenuti naprijed, pomicati se; unaprijediti, ubrzati, potpomoći, pospješiti

advancement *s* napredovanje, napredak, progres; unapređenje, promicanje, širenje

adverse *adj* štetan, nepovoljan; loš; suprotan, protivan, oprečan; neprijateljski

aerospace *s* zračni prostor; industrija povezana s proizvodnjom zrakoplova, raketa, satelita i svemirskih letjelica

affect *v* štetiti, škoditi, utjecati na; *fig* ganuti, dirnuti, pogoditi

agent *s* sredstvo, faktor, agens; posrednik, upravitelj, zastupnik, agent

aid *s* pomoć, potpomaganje; pomoćnik; potpora; pomagalo

airborne *adj* koji se prenosi ili prevozi zrakom, **~ traffic**, **~ disease**

allied *adj* savezнички, prijateljski, srodan, **~ products**

alter *v* mijenjati, promijeniti, izmjeniti, preinačiti, prepraviti, postati drukčiji

alteration *s* promjena, mijenjanje, izmjena, preinaka

analytical *adj* analitički, koji koristi logičke metode zaključivanja da bi nešto shvatio

apparel *v* obući, odjenuti; *fig* opremiti

apparel *s* odijelo, odjeća, nošnja

application *s* primjena, uporaba; molba, zahtjev; sredstvo

apply *v* upotrijebiti, primijeniti

appreciate *v* ocijeniti, procijeniti; poštovati, smatrati vrijednim, dostojnim, cijeniti, biti zahvalan za

appropriate *adj* prikladan, primjeren, odgovarajući

aptitude *s* spretnost, sposobnost (*for* za); prirodna sklonost, prirođeni dar (*for* za)

arm with *v* opremiti, opskrbiti; naoružati

array *s* smotra, revija; izložba; red, vrsta, bojni red

array *v* rasporediti, poredati, nanizati, nakititi, odjenuti

aspire *v* težiti, čeznuti (*to*, *after*, *at* za)

aspiration *s* želja, težnja (*for*, *after*)

assess *v* odmjeriti, odrediti (npr. novčanu kaznu); procijeniti, ustanoviti (npr. štetu)

assessment *s* procjena, određivanje

assignment *s univ* zadaća, domaći zadatak; odredba, dužnost

assign *v* odrediti, dodijeliti, **I was ~ed a task** dodijeljen mi je zadatak

associated with (*phrasal v*) biti spojen, povezan, združen

assortment *s* odabir, izbor, zaliha (hrane)

assorted *adj* miješani razni (proizvodi); odabran

attain *v* postići, dostići, doći do

attorney *s* pravni zastupnik, odvjetnik, punomoćnik

audit *s* pregled računa, revizija knjiga poslovanja, službeno ispitivanje

audit *v* službeno pregledati, kontrolirati račune

auditory *adj* slušni, koji se odnosi na sluh

aware of (to be ~) biti svjestan čega, znati, osjećati

B

background *s* obrazovanje, odgoj; pozadina, podloga; popratna glazba, glazbena kulisa

backup *s* podrška, zamjenik, zamjena, rezerva, kopija pohranjenih podataka na kompjuteru

battery *s* električna baterija, akumulator; baterija aparata ili instrumenata

be called on (or **called upon**) (*phrasal v*) tražiti, moliti, pozvati; najaviti se, svratiti, navratiti, posjetiti

be in demand *phrase* tražen, potreban

benefit (from) *v* koristiti (kome), ići u korist; potpomagati, unaprijediti; uživati pogodnost

benefit *s* prednost, korist, probitak, potpora; novčano uzdržavanje; povlastica, pogodnost.

be off to *v* (colloquial) otići, morati otići; prekinuti, prestati

beyond *prep* preko, iznad, izvan, dalje od, izvan (dosega)

biomechanics *s* biomehanika; grana biofizike koja se bavi mehaničkim aspektom ljudskog ili životinjskog tijela

blink of an eye *idiom expression* u trenu, izuzetno brzo, hitro

boost *v* pojačati, dignuti, potpomoći; hvaliti, uzdizati

borrow *v* posuditi (od koga), uzeti u zajam (od koga) za razliku od glagola **to lend** posuditi (nekome), dati, davati

break *v* lomiti, slomiti, skrhati; odijeliti, otrgnuti; kidati, pokidati; (~**into**) provaliti

bright *adj* svijetao, jasan, sjajan; vedar, radostan; živ, jarkih (boja); pametan, bistar; slavan

broad *adj* širok, otvoren, slobodan; opsežan, obuhvatan; opći, općenit

broaden *v* proširiti, raširiti, rastegnuti

broadcast *v* rasprostraniti, emitirati; nastupati na radiju ili televiziji

broadcast *s* televizijska ili radio-emisija

broker *s* posrednik, mešetar, agent, komisionar

brokerage firm *s* brokerska agencija, posrednička tvrtka

building code (also **building control** or **building regulations**) *s* građevinski propisi

C

calling *s* zvanje, zanimanje, zanat; poziv

capability *s* sposobnost djelovanja

capable *adj* kadar, sposoban, moćan, vješt, vrstan

carpenter *s* stolar, tesar, drvodjelac

carpentry *s* tesarija i stolarija

carry out *v* izvesti, obaviti, provesti, izvršiti

certify *v* posvjedočiti, potvrditi; dati, izdati uvjerenje, svjedodžbu

certificate *s* potvrda, svjedodžba, uvjerenje, certifikat

certification *s* potvrda, ovjerovljenje

civil engineering *s* niskogradnja

civil engineer s građevinski inženjer

civilian *adj* građanski, civilni

civilian *s* građanin, civil

claim *s* pravo, potraživanje, zahtjev, tražbina; tvrdnja; reklamacija, žalba

clay *s* glina, ilovača

cleanup *s* (temeljito) čišćenje (i nakon velikih ekoloških katastrofa npr.);
□ **cleanup costs**

comfortable *adj* udoban, ugodan, lagodan, prijatan, dostatan

community *s* zajednica, društvo, općina .

compensate *v* nadoknaditi, nadomjestiti, izjednačiti, kompenzirati; odštetiti (koga)

compensation *s* naknada, nadoknada (štete); odšteta

□ **compensation costs**

competitive *adj* natječajni, koji se natječe; konkurentan

compete *v* natjecati, takmičiti se, konkurirati

competition *s* natjecanje, takmičenje, rivalstvo; konkurencija, natječaj

complain *v* tužiti se, žaliti se, gunđati; potužiti se; *com* reklamirati

complaint *s* žalba, prigovor, pritužba; *jur* tužba

completion *s* dogotovljenje, izvršenje, dovršenje, ispunjenje

complete *v* dopuniti, dovršiti, ispuniti, izvršiti

compliance *s* udovoljavanje, pristajanje; **in ~with** prema, po, u skladu sa

compliance officer *s* specijalist za praćenje usklađenosti s relevantnim propisima

comply (with) *v* udovoljiti, ispuniti (želju, uvjet); držati se čega

-complying *s*

comprehensive *adj* opsežan, obuhvatan, razumljiv, shvatljiv

concern *s* nemir, briga, skrb; *coll* stvar koja se koga tiče

concern *v* ticati se koga; zanimati koga; brinuti se, sudjelovati, učestvovati

-to be concerned *adj* biti zabrinut, brinuti se

conduct *v* voditi, upravljati, rukovoditi, odvesti

confinement *s* ograničenje (slobode), pritvor, tamnica, zatočenje

conservation *s* (o)čuvanje, zaštita

consideration *s* razmatranje, uzimanje u obzir, proučavanje; obzir, razlog, štovanje

consider *v* razmatrati, smatrati, uzeti u obzir; razmišljati, promisliti, misliti

consistent *adj* dosljedan; u skladu s; gust, čvrst

consistently *adv*

consulting *adj* (osoba ili tvrtka) koja pruža stručnu pomoć i savjete u određenom području

□ **consulting firms**

contingency *s* slučaj, slučajnost; nepredviđena mogućnost, okolnost

contractor *s* preuzimatelj posla; poduzetnik (*esp* građevni); potpisnik ugovora; dobavljač

contravene *v* (pre)kršiti; doći u sukob, ogriješiti se o, osporavati

□ **contravene a law**

correctional *adj* popravni, ~ **institution** popravni dom

correctional facility *s* zatvor

correction *s* ispravak, ispravljanje, popravak, poboljša(va)nje

cost-effective *adj* ekonomičan, financijski isplativ, rentabilan

□ **cost-effective way**

couple *s* par, dvoje

couple *v* spojiti, svezati (*with*), povez(iv)ati

courtroom *s* sudnica

cover *v* davati izvještaj ili opis nekog događaja na TV, radiju ili novinama

coverage *s* izvještavanje (u tisku, TV i sl.), vijesti o nečemu u tisku, na radiju ili TV

□ **media/newspaper/press coverage**

crane *s* dizalica, kran

crane *v* ispružiti, istezati (vrat); dići, dizati (dizalicom)

credibility *s* vjerodostojnost, vjerojatnost

crosscut *s* poprečan put, priječac; presjek

crosscut *v* (poprijeko) presjeći

□ **crosscut saw** *s* pila balvanara

cross-section *s* presjek; dio (tipičan za cjelinu)

culture *s* niz ideja, uvjerenja i načina ponašanja određene organizacije ili grupe ljudi

curriculum *s* (plural curriculums or curricula) nastavni plan

□ **curriculum vitae** *s* kratak životopis

D

decommission *v* staviti opremu ili oružje van uporabe:

- **decommissioning** *s*

dedicate *v* posvetiti, namijeniti, **to be ~ed** biti predan, posvećen nečemu

deficiency *s* (in/of something) oskudica, nestašica, pomanjkanje, nedostatak, manjak, pogreška, mana, šteta

delegate *s* izaslanik, opunomoćenik, povjerenik

delegate *v* izaslati, odrediti, ovlastiti, povjeriti, prenijeti, ustupiti

demanding *adj* težak, koji postavlja velike zahtjeve, koji ima velike zahtjeve

demolish *v* uništiti, razoriti, rušiti, razvaliti, demolirati

designate *v* označiti, odrediti, predložiti, izabrati, unaprijed imenovati

designation *s* označenje, određenje, (privremeno) imenovanje; oznaka, ime, opis

detect *v* otkriti, pronaći

detection *s* otkrivanje, otkriće

determine *v* odrediti, odlučiti, ustanoviti, utvrditi

dial *s* brojčanik (na satu, telefonu itd.); skala (instrumenta, radio-aparata)

differ *v* razlikovati se, razilaziti se, odstupati, ne podudarati se

diminish *v* smanjiti, umanjiti, oslabiti; spasti,, opadati, slabiti

disposal *s* odstranjivanje, uklanjanje; razmještaj, raspored, odluka

dispose of *phrasal v* riješiti se, maknuti, ukloniti, uništiti

disrupt *v* prekinuti (događaj, aktivnost ili proces); razbiti, unijeti razdor

disruption *s* prijelom, prekid, lom, raskid, razdor

diverse *adj* različit (*from* od), raznolik, nejednak, drukčiji

dormitory *s* (skupna) spavaonica, *US* studentski dom

dozen *s* tucet, dvanaest

- dozens (plural) puno stvari ili ljudi

due to *prep* zbog, uslijed

dump *v* istovariti, baciti (na hrpu), istresti, složiti

E

effective *adj* djelotovoran, efektan, snažan, krepak, koristan

-effectiveness *s*

efficiency *s* djelotvornost, moć, sposobnost djelovanja

efficient *adj* djelotovoran, uspješan, efikasan, sposoban, djelatan

electrical circuits *s* strujni krug

emergency *s* nenadan događaj, opasnost, izvanredno stanje, velika nevolja, kritičan trenutak

emergency *adj* nenadan, hitan, nepredviđen

emission *s* (uncountable) ispuštanje (svjetla, plinova, valova itd.), odašiljanje, izbacivanje

emit *v* davati, odašiljati, ispustiti, emitirati

emphasis *s* naglašavanje, jačina, žestina; važnost, isticanje, naglasak

emphasize *v* naglasiti, istaknuti

encompass *v* okružiti, opkoliti, sadržati, obuhvaćati

encounter *s* (slučajan) susret, sukob, okršaj

encounter *v* susresti, naići na koga, na što, naletjeti na koga; naići na otpor, teškoće

enforce *v* prisiliti, iznuditi, silom provesti, staviti na snagu

enforcement *s* prisiljavanje, provođenje, prisilno provođenje, nametanje

engage in *phrasal v* sudjelovati, učestvovati; upustiti se, baviti se (*in* čime)

engineering *s* strojarstvo, mašinogradnja; tehnika

enhance *v* uzdići, povisiti, povećati, pojačati, unaprijediti

enhancement *s* uzdizanje, povećanje, pojačanje, unapređivanje

enlist *v* pozvati u vojsku, privući, pridobiti; dobrovoljno se staviti u službu

erect *v* uspraviti, osoviti, postaviti, izgraditi

erode *v* izjedati, nagrizati, razarati, erodirati

erosion *s* izjedanje, nagrizanje, ispiranje, razaranje, erozija

escalate *v* postati ili učiniti nešto još gorim ili ozbiljnijim, pojačati se (velikom brzinom) i uzrokovati probleme, eskalirati

-escalation *s*

essence *s* bit, suština, jezgra, srž

essential *adj* bitan, prijeko potreban, neophodan, važan

estimate *v* procijeniti, prosuditi, ocijeniti, stvoriti mišljenje

evaluate *v* cijeniti, procijeniti, proračunati

evaluation *s* procjena, proračun, prosuđivanje vrijednosti

eventually *adv* konačno, na kraju, zaključno

evident *adj* očit, jasan, očevidan

excavate *v* iskopati, izdupsti

excavation *s* iskapanje, udubina, prokop

excess *s* (plural **excesses)** prekoračenje, pretjeranost, neumjerenost, prekomjernost, preobilje.

excess *adj* prekomjeran, pretjeran, neumjeren, neobičan

□ **excess materials**

excessive *adj* prekomjeran, pretjeran, neumjeren

expertise *s* posebna vještina ili znanje koje se stječe kroz iskustvo, obuku ili učenje, stručnost, znanje

expose *v* izložiti, izvrgnuti (nezgodi, opasnosti), razotkriti, raskrinkati

exposure *s* izlaganje, izvrgavanje (zraku, zimi, opasnosti); otkrivanje, raskrinkavanje

extend *v* istegnuti, rastegnuti, raširiti, proširiti, produljiti

extensive *adj* širok, proširen, raširen, dalekosežan, obiman, sveobuhvatan

extent *s* širina, veličina, površina, opseg, stupanj, domašaj

F

fabric *s* tkanina, materijal

fabricate *v* proizvoditi, praviti

fabrication *s* gradnja, proizvođenje, proizvodnja

facility *s* sredstvo, mogućnost; **facilities** *pl* postrojenja

failure *s* neuspjeh, propust

fairly *adv* pošteno, sasvim; prilično

fall into (*phrasal verb*) pristati, privoljeti se, (u)pasti (u)

familiar *adj* poznat, pouzdan

familiar with *idiom* dobro upoznat s kim, s čim

fast-paced *adj* brzim tempom, brzom korakom

feature *s* dio osobe ili predmeta, obilježje, karakteristika

fiberglass *s* staklena vuna

finance *s* (**finances** *plural*) dohoci; državni dohodak, financije

finance *v* financirati, pomagati novcem

fire marshal *s* vatrogasni zapovjednik (ili **fire chief**)

fishery *s* ribarstvo

fit *v* slagati se, odgovarati, biti sposoban, valjan, dobar; pristajati

fixture *s* čvrstoća, jačina, trajnost; inventar (kućni, zemljišni); predmet koji je pričvršćen

fleet *s* flota; vozni park

flexion *s* savijanje, zavoj

follow-up *adj* popratni, koji prati, slijedi

□ **follow-up evaluations**

foodbourne *adj* koje se prenose hranom

foreign *adj* stran, nepoznat; inozemni

forecast *v* predviđati, predvidjeti; unaprijed procijeniti

foremost *adj* najistaknutiji, prvi

foreseeable *adj* predvidiv

foresee *v* predvidjeti, slutiti

forestry *s* šumarstvo

freight *s* teret

freight *v* otpremati (robu)

fuel *s* gorivo

fundamentals *s* (*plural*) temeljna načela, temeljna pravila, osnove

further *adj* and *adv* dalje, nadalje; osim toga; drugi, krajnji

G

gauge *s* propisana (standardna) mjera; instrument za mjerenje

generate *v* stvoriti, proizvesti

go about (*phrasal verb*) primiti se; truditi se, nastojati

government agency (or **state agency)** vladina (državna) agencija

grain *s* vlakna; sastav, građa

grasp *v* zahvatiti; shvatiti

guard *s* štitnik; čuvar, straža

guesswork *s* nagađanje, pretpostavljanje

guidelines *s* smjernice

H

habitability *s* naseljivost, prikladnost za stanovanje/življenje

habitable *adj* prikladan za stanovanje/življenje

hands-on *adj* marljiv; aktivan

headquarters *s* (*plural*) glavno sjedište, glavna poslovnica, centrala

healthful *adj* zdrav, ljekovit

heighten *v* pojačati, povećati, produbiti

heightened *adj* pojačan, povećan

hence *adv* zato, stoga

hone *v* usavršiti

hygiene *s* higijena

-**hygienic** *adj*

I

impact *s* udar, udarac; utjecaj

imperative to be ~ biti nužan

implement *v* primijeniti, provesti, izvršiti

-implementation *s*

incident *s* slučaj, događaj; nemio slučaj

infectious *adj* zarazan

in-house *adj* interni

injure *v* učiniti komu nažao; nauditi, povrijediti

injury *s* šteta, povreda, ozljeda

inmate *s* zatvorenik

insurer *s* osiguravatelj

integrate *v* popunjavati, upotpuniti; integrirati

internship *s* stažiranje, praksa

investigative *adj* ispitivački, istraživalački

involve *v* obuhvatiti, sadržavati

irrigate *v* navodnjavati

irrigation *s* navodnjavanje

isolate *v* odvojiti, izdvojiti, izolirati

issue *s* tema, sporno pitanje, problem

issue *v* izdati, puštati/pustiti u opticaj

J

jail *s* zatvor

joint *s anat* zglob

K

knob *s* gumb, dugme

L

label *s* natpis, cedulja, naljepnica, etiketa

label *v* označiti, karakterizirati

ladder *s* ljestve

layout *s* plan, raspored

lead *s* olovo

□ **lead-based paint**, **lead-free**

legal *adj* zakonski, legalan, dopušten

lend *v* posuditi kome nešto

liability *s* odgovornost, obaveza, dužnost

license *v* dozvoliti, dopustiti, opunomoćiti

licence (also *US* **license**) *s* dozvola, ovlaštenje

lifecycle *s* rok trajanja; životni ciklus

lighting *s* rasvjeta, osvjetljenje

likelihood *s* vjerojatnost, izgled, prilika

litigation *s* parnica, proces; sudski postupak

litigate *v* parničiti se; voditi, povesti parnicu

loss control representative (or **a loss control consultant**) osoba koja posjeduje znanje i /ili je stekla obrazovanje iz područja sigurnosti na radu i upravljanja rizicima

lumber *s* građevno drvo

M

maintain *v* održavati

maintenance (of something) *s* održavanje

major *s* glavni predmet (studija na sveučilištu); veći, važniji

mandatory *adj* koji ovlašćuje, nalaže

manufacturing *s* proizvodnja

-manufacture *s, v*

mason *s* zidar

masonry *s* zidarstvo

means *s* (*plural*) sredstva

mechanical engineering *s* strojarstvo

minimize *v* umanjivati, smanjiti, svesti na najmanje

mining *s* rudarstvo, rudarenje

minor *s* sporedan, manje važan predmet (studija na sveučilištu)

miscellaneous *adj* mješovit, raznovrstan

momentum *s* pobuda, motiv; pokretna sila

municipality *s* općinska uprava, gradsko poglavarstvo

muscle *s anat* mišić

N

nursing home *s* dom za starije i nemoćne osobe

O

objective *s* cilj

obtain *v* dobiti, postići, provesti

occupational *adj* stručan, koji se tiče zvanja

offshore *adj and adv* na pučini; odobalni

-inozemni e.g. "offshore accounts"

offshore *v* preseliti (e.g. proivodnju) u inozemstvo

onset *s* napad, napadaj

onshore *adj and adv* kopnen; na obali

onshore *v* preseliti (e.g. proizvodnju) natrag u zemlju u kojoj je prvotno nastala

operable *adj* koji se može provesti u praksu

- **operability** *s*

operate *v* raditi, djelovati, funkcionirati

ordnance *s* oružana, arsenal, služba opskrbljivanja

outlook *s* izgledi, položaj

outmoded *adj* zastario, staromodan

outstanding *adj* izvanredan

overexposure *s* prekomjerno izlaganje

oversee *v* nadgledati, nadzirati

P

parameter *s* parametar, mjerilo, faktor

path *s* staza, put; smjer

pathogenic *adj* patogen

personnel *s* osoblje

persuade *v* uvjeriti; nagovoriti, navesti

- **persuasion** *s*

pertain *v* pripadati (*to*), odnositi se (*to* na), biti u vezi sa

pharmaceutics *s* (*plural*) ljekarništvo, farmacija

physiology *s* fiziologija (nauka koja proučava funkcije organa)

pipeline *s* dovodna cijev (za petrolej i dr.), naftovod

pipeline *v* trasportirati cjevovodom

plant *s* pogon; postrojenje, tvornica

plume *s* oblak

policy *s* polica, isprava o osiguranju

□ **policy holder** *s* osiguranik, vlasnik police

posture *s* položaj, stav (držanje) tijela; stav

potential *s* mogućnost, potencijal

power system *s* energetski sustav

practitioner *s* iskusan čovjek, stručnjak

precaution *s* oprez, mjera opreza

preliminary *adj* uvodni, prethodni, pripremni

premises *s* (*plural*) nekretnine; prostorije, kuća sa zemljištem i svim pripadnim zgradama

□ **working premises** *s* radne prostorije

prescribe *v* (*formal*) propisati, odrediti; nalagati

-**prescription** *s*

preserve *v* sačuvati, očuvati, održati

pricing *s* određivanje cijene, vrednovanje

prison *s* zatvor, kaznionica

procedure *s* postupak, postupanje, put, način vođenja nekog posla

procure *v* dobiti, pribaviti, priskrbiti

promote *v* unaprijediti, promaknuti

provision *s* pribavljanje, snabdijevanje; zaliha; propis, odredba, klauzula (u zakonu, dokumentu)

publicity *s* reklama, publicitet

pursue *v* ići, težiti; nastavljati, voditi

pursuit *s* nastojanje, težnja

R

raise *v* podignuti, uzdići; povisiti, povećati; dizati (vrijednost, cijenu)

range *s* granica, domet; područje, polje (rada)

rate *s* mjera, odnos, cijena; razmjeran dio, rata, obrok

□ **injury rates**

□ **interest rates**

real estate *s* posjed u zemlji, nekretnine

reasonable *adj* razborit, pametan, razuman, logičan

recall *v* zvati, pozvati koga natrag; opozvati; sjećati se

recertify *v* ponovno odobriti

recognition *s* priznanje

recognize (**-ise**) *v* priznati što; cijeniti koga; uzeti što na znanje

recommendation *s* preporuka; uvjerenje, svjedodžba o sposobnosti

recommend *v* preporučiti; savjetovati

recommended *adj* preporučen

recover *v* opet primiti, natrag dobiti što od koga; ponovo osvojiti

recruiter *s* osoba koja provodi zapošljavanje

recycle *v* reciklirati

redundant *adj* (of a person) suvišan e.g. to be **made redundant**

refer to somebody / something, *phrasal verb* koji se odnosi na, o kome, o čemu je riječ

refinery *s* rafinerija

regarding koji se odnosi na

regulator *s* regulator, naprava za reguliranje, uređivač, nadzornik

regulatory *adj* nadzorni, kontrolni

release *v* pustiti da što krene, padne; osloboditi

– **release** *s*

reliability *s* pouzdanost

-rely (**on**)*vi*

relocation *s* preseljenje, premještaj

relocate *v* preseliti, premještati, premjestiti

remediation *s* uklanjanje, korektivne mjere; ispravljenje

□ **remediation contractor**

remediate *v* ispraviti

renovation *s* obnavljanje, obnova

renovate *v* obnoviti, renovirati

requirement *s* zahtjev, traženje; uvjet; potreba

- **require** *v*

respirator *s* respirator; plinska maska

respond *v* odgovoriti, odgovarati; biti odgovoran, jamčiti za

response *s* odgovor, reakcija

resume (also spelled **résumé)** *s* kratak pregled; glavni sadržaj, životopis

retail *adj* koji se tiče trgovine na malo

□ **retail trades**

retailer *s* trgovac na malo

retain *v* čvrsto držati, pridržati, poduprijeti; osigurati usluge

review *s* preispitivanje, provjera

review *v* preispitati, provjeriti

reward *s* nagrada, plaća

-reward *v*

rig *s* bušotina; mašinerija za bušenje i crpljenje nafte, plina

□ **oil rig**

ripsaw *s* pila s grubim zupcima za pilenje drva –usporedi s **crosscut saw**

rise *s* dizanje, povećanje, prirast

□ to be **on the rise (**increasing)

rubber *s* guma

rudder *s* kormilo; *aero* bočno kormilo

S

safeguard *v* štititi, čuvati; pružiti jamstvo, jamčiti, osigurati što

safeguard *s* jamstvo, zaštita

sample *s* uzorak, primjerak

sample *v* uzeti (dati) uzorak; služiti kao uzorak za što

saw *s* pila

schedule *s* plan, program, raspored, spisak, popis; red vožnje

score *v* zadobiti, postići; imati korist; postići uspjeh, rezultat

seek *v* tražiti, pokušati, nastojati

septic *adj* septičan, koji stvara trulež

septic tank *s* septička jama

session *s* sjednica, vrijeme kad se održava sjednica, zasjedanje parlamenta ili suda

set forth *v* objasniti, razlučiti; krenuti

set up *v* postaviti, stvarati, urediti, otvoriti

setting *s* postavljanje, okolica, okruženje, pozadina

shoplifting *s* krađa po dućanima

shrink *v* smanjiti se, stisnuti se

-shrinking *adj*

sibling *s* brat ili sestra

site *s* položaj, gradilište, mjesto

skyrocket *v* naglo se uvećati, porasti

□ **skyrocketing cost** (of health care)

smooth *adj* gladak, ravan; mekan, miran (voda)

- smooth *v*

soil *s* tlo, zemlja

solve *v* riješiti (problem), naći izlaz (iz teškoće)

sophisticated *adj* profinjen, visoko razvijen (ukus); intelektualan; složen, kompliciran, razrađen

sound *adj* zdrav, čitav, bez pogreške, ispravan, razborit

□ **a sound knowledge/understanding** of something

space shuttle *s* svemirska letjelica

specialize (**in**) *v* specijalizirati se, osobito se posvetiti

speciality *s jur* osobit ugovor, uvjet ili stavka; specijalitet, specijalnost

specialty *s* drugi izraz za speciality

spectrum *s* spektar

spill *v* proliti, prosuti, preliti, izliti (tekućinu ili što drugo)

spill *s* prolijevanje

□ **waste spills**

standpoint *s* stajalište, stanovište, gledište

state-of-the-art *adj* najsuvremeniji; vrhunski

steel *s* čelik

steer *v* upravljati (brodom, kolima), usmjeriti (kretanje) u nekom određenom smjeru; upravljati, voziti

□ **steering wheel**

strengthen *v* ojačati, pojačati; krijepiti, potkrijepiti što, dati kome nove snage

stringent *adj* (o zakonu) strog; utvrđen, bezuvjetan (pravilo), koji obvezuje, koji se ne može izbjeći

-stringency *s*

student chapter *s* studentsko udruženje, odnosi se na The Society of Economic Geologists (SEG) Student Chapters. Cilj udruženja je spojiti pojedince u čijem središtu zanimanja je bolje razumijevanje okoliša bogatog resursima i rudama.

stumble *s* poticanje, posrtanje

subcontractor *s* podizvođač, kooperant

substitute *v* nadomjestiti, podmetnuti što (*for* umjesto čega); zamijeniti koga

subtle *adj* fin, tanak, nježan, jedva zamjetljiv; vješt, okretan, spretan, umješan; oštrouman, pronicav, domišljat

subtlety *s* finoća, ošroumnost, domišljatost

suburb *s* predgrađe

- suburban *adj*

superstition *s* praznovjerje

suppress *v* dokinuti, ukinuti, obustaviti

-suppression *s*

survey *v* prijeći okom preko čega, pregledati što, premjeriti, procijeniti okom, nadzirati što

survey *s* (*plural* **surveys)** pregledavanje, razgledavanje, izvještaj; procjenjivanje; nacrt, plan

T

team (with) *v* izdati posao (gradnju kuće, ceste i dr.) poduzetniku, grupi radnika i dr.

term *s* termin, stručni izraz

testimonial *s* svjedodžba, potvrda

testimony *s* svjedočanstvo, dokaz o čemu; *jur* iskaz svjedoka, dokaz svjedocima

-testify *v*

thorough *adj* koji ide skroz, izravan

thoroughly *adv* potpuno, sasvim, temeljito

threat *s* prijetnja, opasnost

threaten *v* prijetiti komu čim (with); ugrožavati koga

timber *s* drvo, drvena građa

tissue *s* fina tkanina; *anat* tkivo

tracking *s* slijediti, progoniti koga, tražiti koga

tradespeople *s* trgovci, obrtnici, zanatlije

trend *s* *fig* opća sklonost, tendencija, nastojanje; tok, tijek (događaja, mišljenja itd.)

trial *s* pokušaj, proba, pokus; *jur* sudbena istraga, sudbeni postupak, postupak, proces, glavna rasprava, optužba

trucking *s* prijevoz, otprema robe kamionima

U

underwrite *v* potpisati policu osiguranja; preuzeti osiguranje robe, osigurati; baviti se poslovima osiguranja

underwriting *s* osiguranje, izdanja (dionica itd.)

utility *s* korisnost, korist; korisna stvar, prednost, probitak

V

value *v* cijeniti, procijeniti; proračunati, odrediti (vrijednost)

v**andalism** *s* vandalizam, divljačko uništavanje

vapor (**vapour**) *s* para, isparina, maglica

vast *adj* golem, ogroman, neizmjeran, beskrajan, silan, prostran

vehicle *s* vozilo, prijevozno sredstvo

vendor *s* prodavač, onaj koji nudi na prodaju; *jur* prodavač (nekretnina)

□**street vendors**

ventilate *v* zračiti, prozračiti, provjetriti

virtual *adj* praktički, zbiljski, pravi, koji je u biti, zapravo

virtually *adv* zbiljsko, zapravo

W

waste *s* gubitak; otpaci (svile, vune itd.)

waste *v* rasipati (novac, snagu), uludo trošiti

□ **waste site**

well-being *s* dobrobit, ugoda, blagostanje

wholesale *adj* koji prodaje na veliko; obilan, prekomjeran

□ **wholesale trade**

Glossary

A

academic, *adjective* of or relating to a college, academy, school, or other educational institution, especially one for higher education

accidental, *adjective* happening by chance or accident; not planned; unexpected; nonessential; incidental; subsidiary

accomplishment, *noun* something difficult that you succeed in doing, especially after working hard over a period of time

accomplish, *verb* succeed in doing, achieve

account for, *phrasal verb* to give an explanation for something that has happened, especially something you are responsible for; to be the reason why something exists or happens

accounting, *noun* the system of recording and summarizing business and financial transactions and analyzing, verifying, and reporting the results; also the principles and procedures of this system; a work done in accounting or by accountants; an instance of applied accounting or of the settling or presenting of accounts

accredit, *verb* (used with object) to ascribe or attribute to (usually followed by with); to attribute or ascribe; consider as belonging; to provide or send with credentials; designate officially; to certify (a school, college, or the like) as meeting all formal official requirements of academic excellence, curriculum, facilities, etc.

accreditation, *noun* the action or process of officially recognizing someone as having a particular status or being qualified to perform a particular activity; official certification that a school or course has met standards set by external regulators

accurate, *adjective* correct or true in every detail; able to do something in an exact way, without making a mistake

acumen, *noun* the ability to make good judgements and take quick decisions

adapt, *verb* to change your ideas or behavior so that you can deal with a new situation; to change something to make it more suitable for a new use or situation

- adaptation, *noun*

administer, *verb* manage and be responsible for the running of (a business, organization,

etc.).

advance, *verb* to progress and become better or more developed

advancement, *noun* progress in your carrer; progress in society, science, human knowledge etc.

adverse, *adjective* negative, unpleasant, or harmful; likely to cause problems

aerospace, *noun* is the human effort in science, engineering and business to fly in the atmosphere of Earth (aeronautics) and surrounding space (astronautics). Aerospace organizations research, design, manufacture, operate, or maintain aircraft and/or spacecraft. Aerospace activity is very diverse, with a multitude of commercial, industrial and military applications.

affect, *verb* to have an effect on; make a difference to; touch the feelings of; move emotionally.

agent, *noun* a substance that has a particular effect; something that causes change

aid, *noun* help or support; a piece of equipment that helps you to do something

airborne, *adjective* carried by the air or wind as pollen or dust; carried by an aircraft; in the air

allied, *adjective* related because of having shared qualities or interests

□ **allied products**

alteration, *noun* (the process of making) a change in the appearance or form of something

analytical, *adjective* using a logical method of thinking about something in order to understand it, especially by looking at all the parts separately

apparel, *noun* a word for clothes, used especially in stores and other businesses

application, *noun* the use of a particular method, process, law etc; a particular use that something has

apply, *verb* to use a particular method, process, law etc

appreciate, *verb* recognize the full worth of; to be grateful for (something); understand (a situation) fully; grasp the full implications of

appropriate, *adjective* suitable, proper

aptitude, *noun* capability; ability; innate or acquired capacity for something; talent; readiness or quickness in learning; intelligence; the state or quality of being apt; special fitness

arm with, *verb* to provide (someone) with a way of fighting, competing, or succeeding

array, *noun* an impressive display or range of a particular type of thing; an ordered series or arrangement.

array, *verb* to display or arrange (things) in a particular way

aspire, *verb* to want to achieve something or to be successful, especially in your career

aspiration, *noun* something you want to achieve, or wish to achieve something; ambition

assess, *verb* estimate size or quality of; estimate value of (property) for taxation; to carefully consider a situation, person, or problem in order to make a judgement

-**assessment**, *noun*

assignment, *noun* work that you must do as part of a course of study or as part of your job

assign, *verb* to give someone a job to do

associated with, (*phrasal verb*) to be connected with something in some way

assortment, *noun* a group or set of things of various types

assorted, *adjective* including various types

attain, *verb* succeed in achieving (something that one has worked for); reach (a specified age, size, or amount)

attorney, *noun* a person legally appointed to transact business on another's behalf; (especially US English) a lawyer, especially one who can act for somebody in court

audit, *noun* an official examination of the financial records of a company, organization, or person to see that they are accurate; a careful examination of something, especially one done to find the amount, size, or effectiveness of something

- **audit**, *verb*

auditory, *adjective* relating to hearing

aware of (to be ~) knowing that something exists, or having knowledge or experience of a particular thing; having special interest in or experience of something and so knowing what is happening in that subject at the present time

B

background, *noun* the type of family, social position, or culture that someone comes from; the type of career, training, or education that someone has had

backup, *noun* one that serves as a substitute or support; additional personnel who provide assistance; an accumulation caused by a stoppage in the flow; a copy of computer data (such as a file or the contents of a hard drive)

battery, *noun* a container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power; a device consisting of one or more electrochemical cells with external connections provided to power electrical devices such as flashlights, smartphones, and electric cars

be called on (or **called upon**) (*phrasal verb*) to officially ask a person or organization to do

something; to visit someone, usually for a short time; to decide to use something that someone can offer you

be in demand, *phrase* to be wanted by a lot of people

benefit (from), *verb* to get help or an advantage from something; to help someone or give them an advantage

benefit, *noun* an advantage you get from a situation

- (British English) money or other help that the government gives people who need financial help, for example because they do not have a job. The American word is welfare.

be off to, *verb* (colloquial) away from something, leaving a place or going away from something

beyond, *preposition* at or to further side of; outside the range or understanding of; more than

biomechanics, *noun* the study of the structure and function of the mechanical aspects of biological systems, at any level from whole organisms to organs, cells and cell organelles, using the methods of mechanics

blink of an eye, *idiom expression* extremely quickly

boost, *verb* to help something to increase, improve, or become more successful; to make someone feel more positive or more confident

borrow, *verb* to receive and use something that belongs to someone else, and promise to give it back to them later (not to be confused wih the *verb* **to lend**)

break into, *verb* to cause to separate into pieces suddenly or violently; smash; to become separated into pieces or fragments

bright, *adjective* bright colours are strong but not dark; full of strong shining light; likely to be successful

broad, *adjective* wide; including many different things or people; expressed in a general way, without many details

broaden, *verb* to become wider; to make something include more things or people

broadcast, *verb* to send out messages or programmes to be received by radios or televisions

broadcast, *noun* the process or action of broadcasting programme

□ broadcast media

broker, *noun* an agent who buys or sells for a principal on a commission basis without having title to the property; a person who functions as an intermediary between two or more parties in negotiating agreements, bargains, or the like

brokerage firms, *noun* is a financial institution that facilitates the buying and selling of financial securities between a buyer and a seller.

building code (also **building control** or **building regulations**) is a set of rules that specify the standards for constructed objects such as buildings and nonbuilding structures. Buildings must conform to the code to obtain planning permission, usually from a local council. The main purpose of building codes is to protect public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures.

C

calling, *noun* a strong urge towards a particular way of life or career; a vocation

capability, *noun* the power or ability to do something; the extent of someone's or something's ability; a facility on a computer for performing a specified task

carpenter, *noun* a person who makes and repairs wooden objects and structures; make by shaping wood

carpentry, *noun* the trade of a carpenter; the work produced by a carpenter

carry out, *verb* to do a particular piece of work, research etc.

certify, *verb* to give someone an official document stating that they have passed an examination or have achieved the qualifications necessary to work in a particular profession

certificate, *noun* an official document or record stating that particular facts are true

-certification, *noun*

civil engineering, *noun* the design, building, and repair of roads, bridges, canals, etc.; the study of this as a subject

-civil engineer, *noun*

civilian, *adjective* a person who is not a member of the police or the armed forces

claim, *noun* a statement that something is true, even though you have no definite proof;

- an official request for money that you believe you have a right to e.g. an insurance claim
- an official request for the right to something
- a statement that you have the legal right to something

clay, *noun* a type of heavy wet soil that becomes hard when it is baked in a kiln (oven) , used for making cups, plates and other objects

cleanup, *noun* the process of removing pollution or waste from a place or an industrial process

□ **cleanup costs**

comfortable, *adjective* feeling physically relaxed, without any pain or other unpleasant feelings; pleasant to wear, hold, or use

community, *noun* all the people who live in a particular area, country, etc. when talked about as a group; a group of people who share the same religion, race, job, etc.

compensate, *verb* to change or remove the bad result of something; to pay someone money becuase they have suffered an injury or loss; to make amends

compensation, *noun* money that someone receives because something bad has happened to them

□ **compensation costs**

competitive, *adjective* offering goods or services at cheaper prices than other companies; always trying to be more successful than other people

compete, *verb* take part in contest, to try to be more successful than other companies or people in business; to try to get something that other people also want to have

-competition, *noun*

complain, *verb* express dissatisfaction or annoyance about something; state that one is suffering from (a pain or other symptom of illness)

complaint, *noun* a written or spoken statement in which someone says they are not satisfied with something; something that someone complains about

completion, *noun* the process of finishing an activity or job, the time an activity or job is finished

-complete, *verb*

compliance, *noun* the practice of obeying a law, rule, or request; obedience to request, command, etc.

compliance officer, *noun* a person who is employed to ensure that a company does not contravene any statutes or regulations which apply to its activities

comply (with), *verb* to obey a rule or law, or to do what someone asks you to do

-complying, *noun*

comprehensive, *adjective* including or dealing with all or nearly all elements or aspects of something.

concern, *noun* a feeling of worry about something, especially one that a lot of people have about an important issue

concern, *verb* to worry someone; to involve or affect someone

-**to be concerned**, *adjective* worried about something

conduct, *verb* to organize and carry out; to lead or guide (someone) to or around a particular place.

confinement, *noun* a situation in which someone is forced to stay in a place, especially a prison, and not allowed to leave

conservation, *noun* the protection of plants and animals, natural areas, and interesting and important structures and buildings, especially from the damaging effects of human activity, e.g. wildlife conservation;
carefully using valuable natural substances that exist in limited amounts in order to make certain that they will be available for as long a time as possible

consideration, *noun* careful thought before making a decision or judgement about something

consider, *verb* to think about something carefully before making a decision or developing an opinion

consistent, *adjective* acting or done in the same way over time, especially so as to be fair or accurate; unchanging in nature, standard, or effect over time.

consistently, *adverb*

consulting, *adjective* providing professional help and advice about a particular subject

□ **consulting firms**

contingency, *noun* a future event or circumstance which is possible but cannot be predicted with certainty; a provision for a possible event or circumstance; an incidental expense

contractor, *noun* a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job.

contravene, *verb* to go or act contrary to; to violate

□ **contravene a law**

correctional, *adjective* of or relating to correction, especially to penal correction

correctional facility, *noun* prison

-**correction**, *noun*

cost-effective, *adjective* giving the most profit or advantage in exchange for the amount of money that is spent

□ **cost-effective way**

couple, *noun* two people or things of the same sort considered together; an indefinite small number

couple, *verb* to link or combine (something) with something else

courtroom, *noun* the place or room in which a court of law meets; a room where legal cases are judged

cover, *verb* to give a report or description of an event on television or radio, or in a newspaper

coverage, *noun* the reporting of news and sport in newspapers and on the radio and television

□ **media/newspaper/press coverage**

- the range or quality of information that is included in a book or course of study, on television, etc. magazines with extensive coverage of diet and health topics

- the amount of something that something provides; the extent to which something covers an area or a group of people

coverage, *noun* news about something on television or radio or in the newspapers

crane, *noun* a very tall machine used for lifting or moving heavy objects and building tall buildings

credibility, *noun* the quality of being trusted and believed in; the quality of being convincing or believable

crosscut saw, *noun* a saw designed chiefly to cut across the grain of wood

cross section, *noun* what you see when you cut through the middle of something so that you can see the different layers it is made of; a drawing of this view a diagram representing a cross section of the human eye the human eye **in cross section**

□ [countable, usually singular] a group of people or things that are typical of a larger group

culture, *noun* a set of ideas, beliefs, and ways of behaving of a particular organization or group of people

curriculum, *noun* (plural curriculums or curricula) the subjects that students study at a particular school or college

D

decommission, *verb* to take equipment or weapons out of use:

- **decommissioning**, *noun*

dedicate, *verb* to spend your time and effort doing something

deficiency, *noun* (in/of something) the state of not having, or not having enough of, something that is essential synonym shortage; a fault or a weakness in something/somebody that makes it or them less successful

delegate, *verb* to give part of your work, power or authority to somebody in a lower position than you; to delegate somebody to do something [usually passive] to choose somebody to do something

demanding, *adjective* needing a lot of time, attention, or energy

demolish, *verb* to destroy or ruin (a building or other structure), especially on purpose; tear down; raze; to put an end to; destroy; explode; to lay waste to; ruin utterly

designate, *verb* to formally choose someone or something for a particular purpose; (formal) to give someone or something a particular name, title, or description

designation, *noun* the action of choosing someone to hold an office or post; the action of choosing a place for a special purpose or giving it a special status; an official name, description, or title

detect, *verb* to prove that something is present using scientific methods; to notice something, especially when it is nor obvious

-detection, *noun*

determine, *verb* to control what something will be; to decide that you really want to do smething, to officially decide something

dial, *noun* the part of a machine or instrument such as a clock or watch which shows you the time or a measurement that has been recorded; a control on a device or piece of equipment which you can move in order to adjust the setting, for example to select or change the frequency on a radio or the temperature of a heater

differ, *verb* to be different from somebody or something

diminish, *verb* to become less; to deliberately make someone or something seem less important than they really are

disposal, *noun* the process of getting rid of something

dispose of, *phrasal verb* to get rid of something you no longer need or want

disrupt, *verb* interrupt (an event, activity, or process) by causing a disturbance or problem; drastically alter or destroy the structure of

disruption, *noun* disturbance or problems which interrupt an event, activity, or process

diverse, *adjective* very different from each other, varied

dormitory, *noun* a building, as at a college, containing a number of private or semiprivate rooms for residents, usually along with common bathroom facilities and recreation

areas; a room containing a number of beds and serving as communal sleeping quarters, as in an institution, fraternity house, or passenger ship

dozen, *noun* a set of twelve things or people

-dozens (plural) lots of things or people

due to, *preposition* as a result of, because of

dump, *verb* to get rid of someone or something that you no longer want or need

E

effective, *adjective* someone or something that is effective works well and produces the result that was intended

-effectiveness, *noun*

efficient, *adjective* doing something well and thoroughly with no waste of time, money or energy

-efficiemcy, *noun*

electrical circuits, *noun* a path, or an interconnected group of paths (at least one of which is closed), capable of carrying an electric current

emergency, *noun* an unexpected situation involving danger in which immediate action is necessary;

emergency, *adjective* used or done during an emergency

emission, *noun* (uncountable) the production or sending out of light, heat, gas, etc. (countable) gas, etc. that is sent out into the air

emit, *verb* to send forth (liquid, light, heat, sound, particles, etc.); discharge; to give forth or release (a sound); to utter or voice, as opinions

emphasis, *noun* special importance or attention that is given to one thing in particular

-emphasize, *verb*

encompass, *verb* to include different types of things; to include or surround an area completely

encounter, *verb* to experience or deal with something, especially a problem; to meet someone or see something for the first time

- **encounter**, *noun*

enforce, *verb* to make sure that a law or rule is obeyed by people; make sure that smething happens or is done

enforcement, *noun* the process of making sure that something happens, especially that people obey a law

engage in, *phrasal verb* to take part in a particular activity, especially one that involves

competing with other people or talking to them

engineering, *noun* the activity of applying scientific knowledge to the design, building, and control of machines, roads, bridges, electrical equipment, etc.

enhance, *verb* intensify, increase, or further improve the quality, value, or extent of

enhancement, *noun* an increase or improvement in quality, value, or extent

enlist, *verb* if you enlist someone or enlist their help, you ask them to help or support you

erect, *verb* to build; construct; raise; to raise and set in an upright or vertical position; to set up or establish, as an institution; found; to bring about; cause to come into existence

erode, *verb* to gradually damage the surface of rock or land so that it begins to disappear

erosion, *noun* the process by which the surface of land or rock is gradually damaged by water, wind, etc and begins to disappear

escalate, *verb* to become, or make something become, much worse or more serious; to increase, especially at a fast rate that causes problems

-escalation, *noun*

essence, *noun* the most important part of something, usually the part that gives it its general character

essential, *adjective* completely necessary; most basic and necessary

estimate, *verb* to say what you think an amount or value will be, either by guessing or by using available information to calculate it

evaluate, *verb* to think carefully about something before making a judgement about its value, importance, or quality

-evaluation, *noun*

eventually, *adverb* at an unspecified later time, in the end, especially after a long delay, dispute, or series of problems

evident, *adjective* clear; easily seen

excavate, *verb* to dig a large hole in the ground, to dig out material from ground

-excavation, *noun*

excess, *noun* (plural **excesses)** an amount of something that is more than necessary, permitted, or desirable; the amount by which one quantity or number exceeds another; lack of moderation, especially in eating or drinking.

excess, *adjective* exceeding a prescribed or desirable amount, e.g. excess materials

excessive, *adjective* much more than is reasonable or necessary; much greater than is usual

expertise, *noun* special skill or knowledge that you can get from experience, training, or study

expose, *verb* to fail to protect someone or something from something harmful or dangerous; to allow something that is usually covered or hidden to be seen

exposure, *noun* the state of being put in a situation in which something harmful or dangerous might affect you; the act of making something publicly known because you believe it is wrong or illegal

extend, *verb* to affect or include someone or something; to have certain scope; to lengthen in space or time

extensive, *adjective* covering a large area; having a great range

extent, *noun* the area covered by something; the size or scale of something; the particular degree to which something is or is believed to be the case.

F

fabric, *noun* cloth, especially when it is used for making things such as clothes or curtains

fabricate, *verb* to make something such as a machine from different parts

fabrication, *noun* the process of fabricating an object

facility, *noun* an area or building used for a particular purpose; (especially in plural) opportunity or equipment for doing something

failure, *noun* lack of success; an unsuccessful person or thing; the neglect or omission of expected or required action

fairly, *adverb* with justice; to a moderately high degree

fall into, (*phrasal verb*) to start doing something by chance; to do something without preparation:rush into; to start having a conversation with someone, especially someone you have just met, e.g. fall into conversation; fall into someone's hands, to get it, usually by chance; to be able to be devided into several groups, categories, parts, etc

familiar, *adjective* well known from long or close association; often encountered or experienced; common; having a good knowledge of; in close friendship; intimate

familiar with, *idiom* having some knowledge about (something)

fast-paced, *adjective* (of a narrative or series of events) moving or developing very quickly

feature, *noun* an important part or aspect of something, characteristic or distinctive part

fiberglass, *noun* a reinforced plastic material composed of glass fibres embedded in a resin matrix; a textile fabric made from woven glass filaments

finance, *noun* (**finances** plural) money or other liquid resources of a government, business, group, or individual; the system that includes the circulation of money, the granting

of credit, the making of investments, and the provision of banking facilities; the science or study of the management of funds; the obtaining of funds or capital

finance, *verb* to provide the money needed for something to happen

fire marshal, *noun* the head of a city, county, state, or provincial fire-prevention or fire investigation bureau; one who is in charge of the fire-fighting personnel and equipment of an industrial establishment — called also **fire chief**

fishery, *noun* a place where fish are bred, either to be sold for food or to be put into lakes and rivers to catch as sport

fit, *verb* be of the right shape and size for; be compatible or in agreement with; match; to try clothing on (someone) in order to make or alter it to the correct size; to be of the right size, shape, or number, to occupy a particular place; to install or fix (something) into place; provide (something) with a particular component or article

fixture, *noun* a piece of furniture or equipment that is fixed in its place and is considered part of the building so you do not take it with you when you move

fleet, *noun* a group of ships sailing together, engaged in the same activity, or under the same ownership; a number of vehicles or aircraft operating together or under the same ownership

flexion, *noun* the action of bending or the condition of being bent, especially the bending of a limb or joint

follow-up, *adjective* something that is done in order to complete something

□ **follow-up evaluations**

foodbourne, *adjective* caused by food contaminated with pathogenic microorganisms or toxic substances, e.g. foodborne illness

foreign, *adjective* from another country or in another country; not typical of something or someone and therefore not expected or familiar

forecast, *verb* to calculate or predict (some future event or condition) usually as a result of study and analysis of available pertinent data; to indicate as likely to occur

foremost, *adjective* first in a series or progression; of first rank or position

foreseeable, *adjective* an event or time that can easily be imagined or known about before it happens

foresee, *verb* to see or know something that will happen in the future

forestry, *noun* the science for caring for forests, and the trees and other plants that grow in them

freight, *noun* goods that are carried by vehicles

freight, *verb* to carry goods on a vehicle

fuel, *noun* a substance such as oil, gas, coal, or wood that produces heat or power when it is burned. petrol or diesel used in vehicles

fundamentals, *noun* (plural) the main or most important rules or parts

further, *adjective* and *adverb* a longer distance; at a greater distance away from a place, or a greater distance in a particular direction; past a certain point [usually in negatives]; used when saying how long before or after a particular time something is; used for saying that something exists or happens more, or to a greater degree

G

gauge, *noun* any device or instrument for measuring, registering measurements, or testing something, especially for measuring a dimension, quantity, or mechanical accuracy; a standard of measure or measurement; a standard dimension, size, or quantity

generate, *verb* bring into existance; produce

go about, (*phrasal verb*) to do something that you normally do in your usual way; to start dealing with a problem, situation, or job in a particular way

government ageny (or **state agency)** often an appointed **commission**, is a permanent or semi-permanent organization in the machinery of government that is responsible for the oversight and administration of specific functions

grain, *noun* the grain of a piece of wood is the direction of its fibres. You can also refer to the pattern of lines on the surface of the wood as the grain

grasp, *verb* to take hold of something or someone firmly; to understand something

guard, *noun* a device worn or fitted to prevent injury or damage; a person who keeps watch, especially a soldier or other person assigned to protect a person or to control access to a place, e.g. a security guard

guesswork, *noun* guessing; the process of trying to find the answer to something by guessing, or the answer found by using this method

guidelines, *noun* official instructions or advice about how to do something

H

habitability, *noun* capable of being inhabited

habitable, *adjective* suitable for living in

hands-on, *adjective* involving or offering active participation rather than theory

headquarters, *noun* (plural) the place where a company or organization has its main offices

healthful, *adjective* conductive to good health, beneficial

heighten, (**transitive** *verb*) to increase the amount or degree of; to make brighter or more intense, to deepen; to bring out more strongly, point up; to make more acute, sharpen; to raise high or higher, to elevate; to raise above the ordinary or trite (**intransitive** *verb*) to become great or greater in amount, degree, or extent; to become brighter or more intense

heightened, *adjective* more intense than normal

hence, *adverb* as a consequence; for this reason

hone, *verb* to develop and improve something, especially a skill, over a period of time

hygiene, *noun* conditions or practices conductive to maintaining health,

-**hygienic**, *adjective*

I

impact, *noun* immediate effect or influence; an occasion when one object hits another

imperative, to be ~ absolutely necessary or required; unavoidable; of the nature of or expressing a command; commanding

implement, *verb* to make something such as an idea, plan, system, or law start to work, and be used; carry out

-**implementation**, *noun*

incident, *noun* something that happens, especially a violent, criminal, or dangerous event; violent episode, civil or military

infectious, *adjective* communicable by infection, as from one person to another or from one part of the body to another, e.g. infectious diseases; causing or communicating infection; tending to spread from one to another

in-house, *adjective* done or existing within an organization; without assistance from outside an organization; internally

injure, *verb* to do an injustice, to wrong; to harm, impair, or tarnish the standing of; to give pain to; to inflict bodily hurt on; to inflict material damage or loss on

injury, *noun* physical harm or damage to someone's body caused by an accident or an attack

inmate, *noun* a person living in an institution such as a prison or hospital

insurer, *noun* a person or company that contracts to indemnify another in the event of loss

or damage; underwriter; a person or thing that insures; a person who sells insurance

integrate, *verb* to connect or combine two or more things so that together they form an effective unit or system; complete by adding parts

internship, *noun* a period of work experience offered by an organization for a limited period of time typically undertaken by students and graduates looking to gain relevant skills and experience in a particular field

investigative, *adjective* involving examining an event or a situation to find out the truth

involve, *verb* if an activity, situation, etc. involves something, that thing is a part of the activity, etc.; if a situation involves someone or something, he, she, or it is affected by it; to include someone in something, or to make them take part in or feel part of it

irrigate, *verb* to bring water to land through a system of pipes, ditches etc in order to make crops grow

-irrigation, *noun*

isolate, *verb* to set or place apart; separate so as to be alone; (Chemistry, Microbiology to obtain (a chemical substance or microorganism) in a separate or pure state, not in combination with other substances; (Medicine) to keep (an infected person) from contact with noninfected persons; quarantine

issue, *noun* an important topic or problem for debate or discussion; personal problems or difficulties; problems or difficulties, especially with a service or facility;

- the action of supplying or distributing an item for use, sale, or official purposes;
- each of a regular series of publications,
- a result or outcome of something

issue, *verb* to supply or distribute (something) for use or sale; to supply someone with (something); formally send out or make known

J

joint, *noun* a structure in the human or animal body at which two parts of the skeleton are fitted together; a point at which parts of an artificial structure are joined..

jail, *noun* is used to temporarily detain those who are suspected or convicted of a crime. It is used for the short-term, usually to hold those awaiting trial or to hold those convicted of low-level offenses that have sentences of one year or less.

K

knob, *noun* a rounded lump or ball, especially at the end or on the surface of something; a ball-shaped handle on a door or drawer; a round button for adjusting or controlling amachine.

L

label, *noun* a small piece of paper, fabric, plastic, or similar material attached to an object and giving information about it; a piece of fabric sewn inside a garment and bearing the brand name, size, or instructions for care; the piece of paper in the centre of a record giving the artist and title; a classifying phrase or name applied to a person or thing, especially one that is inaccurate or restrictive

label, *verb* attach a label to (something)

ladder, *noun* a piece of equipment used for climbing up and down, that consists of two vertical bars or pieces of rope joined to each other by a set of horizontal steps; a series of increasingly important jobs or stages in a particular type of work or process

layout, *noun* the way in which the different parts of something are arranged , the way in which something such as a room, building, or city is arranged

lead, *noun* a soft grey heavy metal used especially in the past for making pipes, covering roofs, and in paint

□ **lead-based paint**, **lead-free** (of petrol)

legal, *adjective* relating to the law; appointed or required by the law; permitted by law

lend, *verb* grant to (someone) the use of (something) on the understanding that it will be returned

liability, *noun* the state of being legally responsible for something; a thing for which someone is responsible, especially an amount of money owed; a person or thing whose presence or behaviour is likely to put one at a disadvantage

license, *verb* authorize the use, performance, or release of (something); permit (someone) to do something

licence (also US **license**), *noun* formal or official permission to do something; a permit from an authority to own or use something, do a particular thing, or carry on a trade (especially in alcoholic drink)

lifecycle, *noun* the length of time that something lasts or remains useful; the series of

changes that happen to an animal or plant during its life

lighting, *noun* equipment in a room, building, or street for producing light; the arrangement or effect of lights

likelihood, *noun* the chance that something will happen

litigation, *noun* the use of the legal system to settle a disagreement

litigate, *verb* to ask a court of law to make a decision about a disagreement

loss control representative (or a loss control consultant) someone who possess a demonstrable knowledge and/or education in arts and science of safety engineering and risk management

lumber, *noun* partly prepared timber

M

maintain, *verb* to keep in existence or continuance; preserve; retain; to keep in an appropriate condition, operation, or force; keep unimpaired

maintenance (of something), *noun* the act of keeping something in good condition by checking or repairing it regularly

major, *noun* a student's main subject at college or university (mainly *Am E*); important, serious, large, or great

mandatory, *adjective* ordered by a law or rule, compulsory

manufacturing, *noun* the business of making goods in large quantities in a factory

-manufacture, *noun*, *verb*

mason, *noun* a person whose trade is building with units of various natural or artificial mineral products, as stones, bricks, cinder blocks, or tiles, usually with the use of mortar or cement as a bonding agent; a person who dresses stones or bricks

masonry, *noun* the craft or occupation of a mason; work constructed by a mason, especially stonework

means, *noun* (plural) a method for doing or achieving something

mechanical engineering, *noun* the discipline that applies engineering, physics, and materials science principles to design, analyze, manufacture, and maintain mechanical systems. It is one of the oldest and broadest of the engineering disciplines

minimize, *verb* to reduce to the smallest possible amount or degree; to represent at the lowest possible amount, value, importance, influence, etc., especially in a disparaging way; belittle

mining, *noun* the process of getting coal or metal from under the ground

minor, *noun* a university or college subject or area of study that is less important and involves less work than a student's main subject

miscellaneous, *adjective* consisting of various kinds of people or things

momentum, *noun* progress or development that is becoming faster or stronger; the speed with which a moving object keeps moving or moves faster; (physics) the tendency of a moving object to keep moving unless another force stops it or slows it down

municipality, *noun* usually a single urban or administrative division having corporate status and powers of self-government or jurisdiction as granted by national and state laws to which it is subordinate

muscle, *noun* a band or bundle of fibrous tissue in a human or animal body that has the ability to contract, producing movement in or maintaining the position of parts of the body.physical power; strength

N

nursing home, *noun* a place where very old people who are ill live and receive medical treatment and care

O

objective, *noun* object or purpose; something that you plan to achieve, especially in business or work

obtain, *verb* get, acquire, or secure (something)

occupational, *adjective* relating to or caused by your job

offshore, *adjective* & *adverb* situated at sea some distance from the shore, e.g. "offshore islands"; (of the wind) blowing towards the sea from the land, e.g. "offshore winds"; relating to the business of extracting oil or gas from the seabed, e.g. "a safety regime for the offshore industry"

-made, situated, or registered abroad, especially in order to take advantage of lower taxes or costs or less stringent regulation, e.g. "offshore accounts"

offshore, *verb* move (some of a company's processes or services) overseas

onset, *noun* the beginning of something, especially something bad

onshore, *adjective* & *adverb* situated or occurring on land (often used in relation to the oil and gas industry); (especially of the wind) from the sea towards the land. e.g. "a slight onshore breeze"

onshore, *verb* (of a company) transfer (a business operation that was moved overseas) back to the country from which it was originally relocated

operable, *adjective* capable of being operated; capable of being put into practice

- **operability**, *noun*

operate, *verb* to use and control a piece of equipment

ordnance, *noun* military supplies, especially weapons, missilles, and bombs

outlook, *noun* an idea about what a situation will be like in the future; view, (future) prospect

outmoded, *adjective* old-fashioned and no longer useful or relevant to modern life; no longer fashionable or widely accepted; no longer practical or usable

outstanding, *adjective* extremely good or impressive, above the rest

overexposure, *noun* to expose excessively

oversee, *verb* to watch something in order to check that it works or happens in the way it should

P

parameter, *noun* (esp. measurable or quantifiable) characteristic or feature; (usually plural) a limit that affects how something can be done

path, *noun* a way from one place to another that people can walk along; the way someone takes to achieve something

pathogenic, *adjective* causing or capable of causing disease

personnel, *noun* a body of persons usually employed (as in a factory or organization); the people working in an organization or for a particular type of employer

persuade, *verb* to make someone agree to do something by giving them reasons why they should; to make someone believe that something is true

- **persuasion**, *noun*

pertain, *verb* belong, to be directly related to something

pharmaceuticals, *noun* (plural) a compound manufactured for use as a medicinal drug; shares in companies manufacturing medicinal drugs

physiology, *noun* the science that deals with the way that the bodies of living things operate

pipeline, *noun* a long pipe, typically underground, for conveying oil, gas, etc. over long

distances; a channel or system supplying goods or information

pipeline, *verb* to convey (a substance) by a pipeline

plant, *noun* a factory that produces power, or processes chemicals; large machines and equipment used in industry

plume, *noun* cloud of something that rises and curves upwards in the air, e.g. a plume of smoke or a radioactive plume

policy, *noun* a contract between an insurance company and a person or organization

□ **policy holder**, *noun* someone who has an insurance policy

posture, *noun* the position in which someone holds their body when standing or sitting; a particular approach or attitude

potential, *noun* someone's or something's ability to develop, achieve, or succeed; existing in possibility; capable of development into actuality

power system, *noun* a system of high tension cables by which electrical power is distributed throughout a region

practitioner, *noun* a person actively engaged in an art, discipline, or profession, especially medicine

precaution, *noun* something done to protect people or things against possible harm or trouble; action taken beforehand to avoid risk or ensure good result

preliminary, *adjective* coming before a more important action or event, especially introducing or preparing for it; an event or action that introduces or prepares for something else

premises, *noun* (plural) the land and buildings owned by someone, especially by a company or organization; house or other building and the land on which it is built

prescribe, *verb* (formal) to state officially what should be done in a particular situation; if a doctor prescribes a drug or treatment, they say you should have it

-**prescription**, *noun*

preserve, *verb* to keep an idea, quality, or situation from changing or being lost; maintain, retain

pricing, *noun* the act of deciding how much to charge for something

prison, *noun* a facility that holds convicts who have committed crimes the legal system deems especially serious (e.g., repeated drunk driving offenses, first degree murder) for more long-term sentences

procedure, *noun* the official or usual way of doing something; a way of acting or progressing in a course of action, esp an established method; the established mode

or form of conducting the business of a legislature, the enforcement of a legal right, etc

procure, *verb* to obtain something especially with effort or difficulty; succeed in getting, buy, obtain

promote, *verb* to contribute to the growth or prosperity of; to advance in station, rank, or honor; to advance (a student) from one grade to the next higher grade; to help bring (something, such as an enterprise) into being; to present (merchandise) for buyer acceptance through advertising, publicity, or discounting

provision, *noun* the fact that something is provided or available; plans or preparation for future needs; a part of an agreement or law that deals with a particular problem

publicity, *noun* attention in magazines, newspapers or television; information that makes people notice a person, product etc.

pursue, *verb* to follow a course of activity; to try to achieve something

pursuit, *noun* the process of trying to achieve something

R

raise, *verb* to put something in a higher place or position; to increase a number, amount, or level

range, *noun* the area of variation between upper and lower limits on a particular scale; the scope of a person's knowledge or abilities; the compass of a person's voice or a musical instrument; the period of time covered by something such as a forecast;
the area covered by or included in something

rate, *noun* the number of times something happens, or the number of examples of something within a particular period of time; an amount of money that is paid or charged
□ **injury rates** □ **interest rates**

real estate, *noun* land and the buildings on it; the business of buying and selling land and property

reasonable, *adjective* having sound judgement; ready to listen to reason; sensible; if something is reasonable, there are good reasons for thinking that it is true or correct

recall, *verb* to call back; to bring back to mind; to remind one of, resemble

recertify, *verb* to certify (someone or something) again, for a second time or differently

recognition, *noun* the ability to recognize a person or thing; praise, respect, or admiration

recognize (**-ise**) *verb* to know who the person is or what the thing is that you are seeing, hearing etc because you have seen, heard etc them before: to accept that something is true or important

recommendation, *noun* a suggestion or a piece of advice about how to solve a problem, deal with a situatin etc; a suggestion that someone or something is especially suitable or useful for a particular situation

recommend, *verb* to advise someone that they should do something; to say that someone or something is good and worth using, having, or experiencing

recommended, *adjective* officially suggested or advised; commended by someone as good or useful

recover, *verb* to regain (a substance) in usable form, as from refuse material or from a waste; to regain the strength, composure, balance, or the like, of (oneself)

recruiter, *noun* an individual who works to fill job openings in businesses or organizations, s/he works from resumes or by actively soliciting individuals qualified for positions. His/her job includes reviewing candidate's job experiences, negotiating salaries, and placing candidates in agreeable employment positions. Recruiters typically receive a fee from the hiring employers.

recycle, *verb* to sort and collect rubbish in order to treat it and produce useful materials that can be used again; to use something again for a different purpose

redundant, *adjective* (of a person) without a job because there is no more work available for you in a company, e.g. to be **made redundant,** redundant employees - not needed or useful

refer to somebody /something, *phrasal verb* to talk or write about someone or something, especially in only a few words; if writing or information refers to someone or something, it relates to that person or thing

refinery, *noun* an industrial installation where a substance is refined

regarding, *preposition* concerning a particular subject

regulator, *noun* a person or organization whose job is to be certain that companies, systems etc act fairly and follow rules

regulatory, *adjective* a regulatory organization or company controls an activity, process, or industry

release, *verb* to let a substance or energy spread into the area or atmosphere around it, especially as part of a chemical reaction; set free, liberate, allow to move from

fixed position; make (information) public

– **release**, *noun*

reliability, *noun* the quality of being able to be trusted to do what somebody wants or needs; the quality of being likely to be correct or true; the quality of being able to work or operate for long periods without breaking down or needing attention

-rely (**on**), *verb*

relocation, *noun* the process of moving to a different place to work, or of moving employees to a different place to work

relocate, *verb* to move to a new place and establish one's home or business there

remediation, *noun* the action of remedying something, esp the reversal or stopping of damage to the environment; (Environmental Science) the action of remedying something, esp the reversal or stopping of damage to the environment

remediate, *verb* to correct or make right.

□ **remediation contractors**

renovation, *noun* the action of renovating a building

renovate, *verb* to make something old look new again by repairing and improving it, especially a building

requirement, *noun* something that a rule, law, contract etc states that you must do, something that is needed in order for something to happen

- require, *verb*

respirator, *noun* an apparatus worn over the mouth and nose or the entire face to prevent the inhalation of dust, smoke, or other noxious substances; an apparatus used to induce artificial respiration

respond, *verb* to react to something by taking a particular course of action; to react by doing what is needed, suitable, or right for a particular situation

response, *noun* a reaction, action, feeling, etc. caused by stimulus etc.; answer, reply

resume (also spelled **résumé)**, *noun* a document used by a person to present their backgrounds and skills, most often used to secure new employment; also a summary of something

retail, *adjective* relating to the sale of goods directly to the public for their own use;

□ **retail trades**

retailer, *noun* a person, shop, or business that sells goods to the public; a company that sells

goods to the public in stores and on the internet, rather than to stores, other businesses, etc.

retain, *verb* to keep someone or something; to remember ideas or information; to employ a professional person such as a lawyer or doctor by paying an amount of money called a retainer before the work is done

review, *verb* formal examination of a situation or system by people in authority. This is usually done in order to see whether it can be improved or corrected

reward, *noun* something good that happens or that you receive because of something you have done, rerturn or recompense for service or merit

-**reward**, *verb*

rig, *noun* a tall structure fitted with equipment for getting oil or gas out of the ground or from under the bottom of the sea

□ **oil rig**

ripsaw, *noun* a saw for cutting wood with the grain; a coarse-toothed saw used to cut wood in the direction of the grain - compare **crosscut saw**

rise, *noun* an increasein size, amount, quality, or strength

□ to be **on the rise** increasing

rubber, *verb* a strong substance that can bend easily and is used for making things such as tyres and boots

rudder, *noun* a flat piece of wood or metal at the back of a boat or aircraft, moved from side to side in order to control the direction of travel

S

safeguard, *verb* to protect something or someone from being harmed or having problems

safeguard, *noun* a law, rule, plan etc that protects someone or something from harm or problems

sample, *noun* a small part of anything or one of a number, intended to show the quality, style, or nature of the whole; specimen

sample, *verb* to take a sample or samples of; test or judge by a sample

saw, *noun* a hand tool for cutting wood or other hard materials, typically with a long, thin serrated blade and operated using a backwards and forwards movement

schedule, *noun* a list of planned activities or things to be done showing the times or dates when they are intended to happen or be done; timetable, a list of the times when

events are planned to happen, for example the times when classes happen or when buses, etc. leave and arrive

score, *verb* to achieve a particular amount, level etc in a test; to be successful in doing something; to have an advantage

seek, *verb* to ask for something or try to get something, search, inquire

septic, *adjective* denoting a drainage system incorporating a septic tank

septic tank, *noun* a large, usually underground container in which solid waste and urine are dissolved by the action of bacteria

session, *noun* a period of time used for a particular activity; a formal meeting of an institution such as a parliament or a court of law

set forth, *verb* to explain or describe something in a clear and detailed way, especially in writing; begin a journey

set up, *verb* to organize or plan something such as an event or system, start, establish, equip, prepare

setting, *noun* the place where someone or something is, and all the things, people, or emotions that are part of that place; surrounding, background, context

shoplifting, *noun* the illegal act of taking goods from a shop without paying for them

shrink, *verb* to become smaller in size, amount, value or range; become or make smaller, especially by action of moisture, heat, or cold

-shrinking, *adjective*

sibling, *noun* brother or sister

site, *noun* an area of land where something is being built or could be built; a place used for a particular purpose

skyrocket, *verb* if an amount, value or cost skyrockets , it rises quickly to a very high level

□ **skyrocketing cost** of health care

smooth, *adjective* having an even and regular surface; free from perceptible projections, lumps, or indentations; (of a liquid) with an even consistency; without lumps; (of the sea or another body of water) without heavy waves; calm; (of movement) without jerks

- smooth, *verb*

soil, *noun* the substance on the surface of the Earth in which plants grow

solve, *verb* to find a solution, explanation, or answer for; to pay in full

sophisticated, *adjective* having a lot of experience of the world and knowing about fashion, culture and other things that people think are socially important; (of a machine,

system, etc.) clever and complicated in the way that it works or is presented, e.g. highly sophisticated computer systems; (of a person, ideas, tastes, manners, etc.) altered by education, experience, etc., so as to be worldly-wise; not naive; pleasing or satisfactory to the tastes of sophisticates, or people who are educated, cultured, and worldly-wise

sound, *adjective* sensible; that you can rely on and that will probably give good results
a person of sound judgement
-[only before *noun*] good and thorough
□ **a sound knowledge/understanding** of something
- in good condition; not damaged, hurt, etc.

space shuttle, *noun* a vehicle that travels into space and back to Earth and lands like a plane

specialize (**in**), *verb* to concentrate on and become expert in a particular subject or skill; to confine oneself to providing a particular product or service; to make a habit of engaging in a particular activity

speciality, *noun* a special mark or quality; a special object or class of objects; a special aptitude or skill

specialty, *noun* another term for speciality

spectrum, *noun* the whole range of ideas, qualities, situations etc that are possible

spill, *verb* to accidentally pour a liquid out of its container

spill, *noun* an amount of liquid that has accidentally fallen out of its container
□ **waste spills**

standpoint, *noun* a set of beliefs and ideas from which opinions and decisions are formed

state-of-the-art, *adjective* the most recent stage in the development of a product, incorporating the newest ideas and features; somethimng described as the **state-of-the-art** means that it is the best available because it has been made using the most modern techniques and technology

steel, *noun* a strong metal made from a mixture of iron and carbon

steer, *verb* to guide (a vessel or vehicle), especially by means of a device such as a rudder, paddle, or wheel; to set and follow (a course); to advise or direct (a person) toward a place or course of action
□ **steering wheel**

strengthen, *verb* to make something stronger so that it will take more weight or force without breaking; to make a feeling, decison, relationship etc stronger or more powerful; to give support to a position or argument

stringent, *adjective* stringent rules or conditions are strict and make you achieve high standards

-stringency, *noun*

student chapter, *noun* refers to The Society of Economic Geologists (SEG) Student Chapters. They seek to bring together like minded individuals interested in better understanding our resource-rich environment and the minerals it contains.

stumble, *noun* to hit your foot against something while you are walking or running, and almost fall, trip; to walk or move in an unsteady way; stumble (over/through something), to make a mistake or mistakes and stop while you are speaking, reading to someone, or playing music

subcontractor, *noun* a firm or person that carries out work for a company as part of a larger project

substitute, *verb* to use or add in place of; to replace (someone or something) with another

subtle, *adjective* thin, tenuous, or rarefied, as a fluid or an odor; fine or delicate in meaning or intent; difficult to perceive or understand; delicate or faint and mysterious; requiring mental acuteness, penetration, or discernment; cunning, wily, or crafty

subtlety, *noun* the state or quality of being subtle; delicacy or nicety of character or meaning; acuteness or penetration of mind; delicacy of discrimination

suburb, *noun* an area or town near a large city but away from its centre , where there are many houses, especially for middle-class people

- suburban, *adjective*

superstition, *noun* a belief that things such as magic or luck have the power to affect your life; belief in the supernatural

suppress, *verb* to stop a physical process from happening or developing; to put an end to; prevent (information, feelings, etc.) from being seen, heard, or known; to end something by force

-suppression, *noun*

survey,. *verb* look closely at or examine (someone or something); examine and record the area and features of (an area of land) so as to construct a map, plan, or description; examine and report on the condition of (a building), especially for a prospective buyer; investigate the opinions or experience of (a group of people) by asking them questions; investigate (behaviour or opinions) by questioning a group of people

survey, (*noun*, plural **surveys)** a general view, examination, or description of someone

or something; an investigation of the opinions or experience of a group of people, based on a series of questions; an act of surveying a building

T

team (with), *verb* come together as a team to achieve a common goal

term, *noun* a word or phrase used for referring to something

testimonial, *noun* a formal written statement, often by a former employer, about somebody's abilities, qualities and character; a formal written statement about the quality of something; a thing that is given or done to show admiration for somebody or to thank somebody

testimony, *noun* a formal written or spoken statement, especially one given in a court of law; evidence or proof of something; a public recounting of a religious conversion or experience

-testify, *verb*

thorough, *adjective* executed without negligence or omissions, e.g. a thorough search

- complete; perfect; utter;
- extremely attentive to accuracy and detail; painstaking:
- having full command or mastery of an art, talent, etc.:
- extending or passing through

thoroughly, *adverb* in a thorough manner or degree; completely and carefully; perfectly; utterly

threat, *noun* a situation or activity that could cause harm or danger; the possibility that something bad is going to happen

threaten, *verb* to tell someone that you might or you will cause them harm, especially in order to make them do something

timber, *noun* wood used for building houses or furniture

tissue, *noun* (**uncountable**) (also **tissues** [plural]) a collection of cells that form the different parts of humans, animals and plants e.g. muscle/brain/nerve, etc.

(**countable**) a piece of soft paper that absorbs liquids, used especially as a handkerchief

tracking, *noun* the act of following or looking for a person, animal, or thing

tradespeople, *noun* people who buy and sell goods, especially people who own a shop

trend, *noun* a general development or change in a situation or in the way that people are behaving; a new development in clothing, make-up, etc; fashionable

trial, *noun* the act of trying, testing, or putting to the proof.; the examination before a judicial tribunal of the facts put in issue in a cause, often including issues of law as well as those of fact; the determination of a person's guilt or innocence by due process of law

trucking, *noun* the activity or business of taking something somewhere by truck

U

underwrite, *verb* sign and accept liability under (an insurance policy), thus guaranteeing payment in case loss or damage occurs, e.g. to accept (a liability or risk) under the terms of an insurance policy

- (of a bank or other financial institution) pledge to buy all the unsold shares in (an issue of new shares)

underwriting, *noun* the act of giving financial support for an activity, and for paying any costs if it fails

utility, *noun* (usually plural – utilities) a public service such as gas, water, or electricity that is used by everyone

V

value, *verb* to consider or rate highly; to estimate or assign the monetary worth of ; to rate or scale in usefulness, importance, or general worth

vandalism, *noun* willful or malicious destruction or defacement of public or private property

vapor, (**vapour**) *noun* very small drops of water or other liquids in the air, that makes the air feel wet

vast, *adjective* of very great area or extent; immense; of very great size or proportions; huge; enormous; very great in number, quantity, amount, etc.; very great in degree, intensity, etc.

vehicle, *noun* a thing used for transporting people or goods, especially on land, such as a car, lorry, or cart; a thing used to express, embody, or fulfil something

vendor, *noun* a person who sells things, for example food or newspapers, usually outside on the street, □ **street vendors**

- (**formal**) a company that sells a particular product software vendors
- (**law**) a person who is selling a house, etc.

ventilate, *verb* to expose to air and especially to a current of fresh air for purifying, curing, or refreshing; to cause fresh air to enter and move around a closed space

virtual, *adjective* almost the same as the thing that is mentioned; created by computers or appearing on computers or the Internet

virtually, *adverb* used for emphasizing that a statement is almost completely true

W

waste, *noun* the useless materials, substances, or parts that are left after you use something

waste, *verb* to use more of something than it is necessary, or use it in a way that does not produce the best results

□ **waste site**

well-being, *noun* the satisfactory state that someone or something should be in, that involves such things as being happy, healthy, and safe, and having enough money

wholesale, *adjective* relating to the business of selling large quantities of goods, especially to people who are going to sell them in a shop

□ **wholesale trade**

Acronyms and abbreviations

AIHA American Industrial Hygiene Association;

ARM Associate in Risk Management

ASSE American Society of Safety Engineers

BCSP Board of Certified Safety Professionals

CERCLA Comprehensive Environmental Response Compensation and Liability Act

CHCM Certified Hazard Control Manager

CIH Certified Industrial Hygiene or Certified Industrial Hygienist

CSP Certified Safety Professional

DOT Department of Transportation

EPA Environmental Protection Agency

FM Factory Mutual

FMEA Failure Mode and Effects Analyses

FTA Fault Tree Analysis

GC General Contractor

GSP Graduate Safety Practitioner

HAZOPS Hazard and Operability Studies

MBA Master's Degree in Business Administration

NIOSH National Institute for Occupational Safety and Health)

NTSB National Transportation Safety Board

OSHA Occupational Safety and Health Administration

PHA Preliminary Hazard Analyses

RCRA Resource Conservation and Recovery Act

TSCA Toxic Substances Control Act

UL Underwriters Laboratories

Sources

Career Guide to the Safety Profession. American Society of Safety Engineers Foundation, Board of Certified Safety Professionals, 3rd edition, 2007.

Bujas, Željko. *Veliki englesko-hrvatski rječnik*. Zagreb: Nakladni zavod Globus, 1999.

Filipović, Rudolf. *English-Croatian Dictionary*. (*Englesko-hrvatski rječnik*). Zagreb: Školska knjiga i Grafički zavod Hrvatske, 1991.

Macmillan English Dictionary for Advanced Learners. Oxford: Macmillan Publishers, 2002.

Oxford Paperback Dictionary and Thesaurus. Oxford: Oxford University Press, 1997.

Macmillan Collocations Dictionaryfor Learners of English. Oxford, Macmillan Publishers, 2010.

Online editions

Cambridge Dictionary Online. Cambridge Online, 2018. Web 15 April 2018.

Collins English Online Dictionary. Collins English Online, 2018. Web 10.April 2018.

English Oxford Living Dictionaries. Oxford English Online, 2018. Web 20 April 2018.

Merriam-Webster Online Dictionary. Merriam-Webster Online, 2018. Web.12 March 2018.