

COURSE DETAILS

10151 Thai Studies

(6 credits)

Course Learning Outcomes

1. To learn about Thailand's history, society, language and culture.
2. To be able to apply the course knowledge to daily life.
3. To understand and take pride in what it means to be Thai.

Course Description

Knowledge about Thai in terms of history, settlement, politics, economy, culture, religion and ritual, language and literature, arts and culture.

54119 Statistics and Research in Occupational Health and Safety

(6 credits)

Course Learning Outcomes

1. To elucidate definitions, concepts, principles, and statistical operations.
2. To be able to apply statistical knowledge in data presentation, estimation, and hypothesis testing, decision and research conduction in occupational health and safety and health sciences.
3. To elucidate research results on occupational health and safety and health sciences in Thailand and abroad and basic research conduction.

Course Description

Fundamental mathematics and general statistics; frequency distribution; measurement of central tendency, and distribution measurement; probability, probability distribution, and random sampling, estimation and hypothesis testing; multiple correlation and regression equation; non-parametric; vital statistics and demographic indicators; fundamental principles of research and research process; application of statistics and research in occupational health and safety, and health sciences.

54122 Laws Related to Public Health

(6 credits)

Course Learning Outcomes

1. To enable students to have knowledge and understanding of fundamental knowledge of laws, law evolution, law system, types, characteristics, and legislative process, and scope of law enforcement.
2. To elucidate critically fundamental principles of general knowledge of public health, environment, and forensic science laws.
3. To elucidate acts, decrees, and ministerial regulations relating to public health, environment, and forensic science operations.
4. To apply knowledge of relevant laws in public health, environment, and forensic science operations.

Course Description

Fundamental knowledge of laws, law evolution, law system, types, characteristics, legislative process, and scope of law enforcement; Fundamental knowledge of forensic science, general knowledge of public health, environment, and forensic science laws; acts, decrees and ministerial regulations relating to public health, environment, and forensic science operations; laws relating to public health profession; health service facility, disease control and prevention; health protection; environmental health; environmental health impact analysis.

54124 Health System and Epidemiology**(6 credits)*****Course Learning Outcomes***

1. To elucidate general knowledge of health system and health service management system in Thailand.
2. To elucidate knowledge of health planning and policy, and health outcome evaluation.
3. To elucidate relationship between operations of various health systems and occupational health and safety works.
4. To elucidate fundamental knowledge on Epidemiology and be able to apply in occupational health and safety works.

Course Description

General knowledge of health system and health service management system in Thailand; health planning and policy; health outcome evaluation; relationship between operations of various health systems and occupational health and safety works; as well as fundamental knowledge on Epidemiology and application of Epidemiology methods in occupational health and safety works.

54125 Measurement and Evaluation in Industrial Hygiene**(6 credits)*****Course Learning Outcomes***

1. To elucidate principles of awareness of working environment affecting health.
2. To elucidate principles of working environment evaluation affecting health and limit values of substance exposure in working environment.
3. To elucidate principles and methods on measurement of noise, illumination, radiation, vibration, temperature, and atmospheric pressure, air sampling and analysis.
4. To evaluate working environment.

Course Description

General knowledge of industrial hygiene; awareness of characteristics and improper working environment which hazard towards operators' health; principles of exposure assessment in working environment affecting operators' health; limit values of substance exposure in working environment; industrial hygiene measurement instrument, principles and methods on measurement of noise, illumination, radiation, vibration, temperature, and atmospheric pressure; air sampling and chemical and biological analysis.

54126 Health Promotion, Physical Assessment and Basic Medical Care**(6 credits)*****Course Learning Outcomes***

1. To elucidate concepts and theories on health education and behavioral science, communication, and community participation.
2. To elucidate planning, evaluation, and health behavior modification.
3. To elucidate health promotion, guidance and counselling health behaviors.
4. To elucidate assessment and basic treatment, caring of patients or people from adverse health impact.
5. To elucidate first aid, rehabilitation, and patient referral.

Course Description

Concepts and theories on health education and behavioral science communication, and community participation; analysis of health behaviors; planning, evaluation, and health behavior modification; health promotion; guidance and counselling health behaviors; as well as assessment and basic treatment; caring of patients or people from adverse health impact; first aid; rehabilitation; and patient referral

54127 Fundamental of Occupational Health and Environmental Health**(6 credits)*****Course Learning Outcomes***

1. To elucidate principles and basic concepts of occupational health and environmental health works.
2. To acquire basic knowledge and understanding of work safety in industrial hygiene, toxicology, ergonomics, and occupational diseases.
3. To elucidate principles and concepts on management of occupational health and safety.
4. To acquire basic knowledge and understanding of clean water provision, pollution control of water, air, noise, vibration, and ray as well as solid wastes and sewages.
5. To elucidate principles and concepts on food and residential sanitation, management of nuisance and business that might be harmful to health; and environmental health management.

Course Description

Concepts of occupational health and environmental health; basic knowledge on work safety; industrial hygiene, toxicology, ergonomics, and occupational diseases; management of occupational health and safety; basic knowledge of clean water provision; pollution control of water, air, noise, vibration, and ray as well as solid wastes and sewages; food and residential sanitation; management of nuisance and business that might be harmful to health; and environmental health management works.

54128 Industrial Hygiene Control Technology**(6 credits)*****Course Learning Outcomes***

1. To elucidate concepts and principles in prevention and control on industrial hygiene.
2. To elucidate principles and guidelines on design of ventilation system and air pollution treatment.
3. To elucidate principles and technology on indoor air quality control.
4. To elucidate principles and technology in hazard prevention and control of noise, light, ray, vibration, temperature, and atmospheric pressure.
5. To elucidate guidelines of working inspection and maintenance of working environmental control system, as well as management measure in control on industrial hygiene.

Course Description

Concepts and principles in prevention and control on industrial hygiene; principles and engineering technology in industrial hygiene work; design of ventilation system; principles and technology on indoor air quality control; principles of air pollution treatment; efficiency and appropriateness of treatment system for various types of air pollution; principles and technology in hazard prevention and control of noise, light, ray, vibration, temperature, and atmospheric pressure; working inspection and maintenance of working environmental control system, as well as management measure in control on industrial hygiene.

54129 Basic Engineering for Occupational Health and Safety**(6 credits)*****Course Learning Outcomes***

1. To elucidate basic knowledge on engineering and specific knowledge of various fields of engineering.
2. To read various engineering drawing.
3. To apply specific knowledge of various fields of engineering in occupational health and safety works.

Course Description

Basic knowledge on engineering; specific knowledge on civil engineering, mechanical engineering, electronic engineering, industrial engineering, and chemical engineering; reading of engineering drawing for applying in occupational health and safety works.

54130 Occupational Health and Safety Management Technology**(6 credits)*****Course Learning Outcomes***

1. To elucidate concepts of accident, investigation and analysis of accident, loss control, and propose accident prevention.
2. To use job safety analysis technique, provide safety operation procedure, and provide safety manual.
3. To be able to use occupational health and safety management technology prior to accident.
4. To be able to use occupational health and safety management technology during and after accident.
5. To be able to select and use personal protective equipment appropriately to hazards while working.
6. To provide training and develop safety work.
7. To elucidate principles of planning and provide occupational health and safety report.
8. To provide security information system, determine public relations method, and campaign of industrial safety.
9. To be able to assess and manage risk.

Course Description

Concepts and theories of accident;, investigation and analysis of accident; loss analysis; work safety technique; use of personal protective equipment; safety manual; safety sign; responsible duty of occupational health and safety; organizations safety policy; welfare provision; work information system and preparation of annual report on occupational health and safety; principles of risk assessment and management; management system on occupational health and safety, and various relevant management systems.

54131 Occupational Health, Safety and Environment Law and Standards**(6 credits)*****Course Learning Outcomes***

1. To acquire basic knowledge of laws and use of laws.
2. To acquire understanding of legal measures on occupational health and safety, working environment, and relevant laws in both Thailand and abroad.
3. To elucidate relevant organizations in management of law on occupational health and safety, and working environment in both Thailand and abroad.
4. To acquire knowledge and understanding regarding to international standards and relevant regulations on occupational health and safety, and working environment.
5. To be able to identify responsibilities of work safety officers in operation on occupational health and safety, and working environment as well as legal welfare provision.

Course Description

Basic knowledge of laws and use of laws on occupational health and safety, working environment in Thailand and relevant laws; critical international laws and standards on occupational health and safety, and working environment; international standards and relevant regulations on occupational health and safety, and working environment as well as relevant organizations in management of law on occupational health and safety, and working environment in both Thailand and abroad; and responsibilities of legal work safety officers in operation on occupational health and safety, and working environment.

54132 Safety Engineering Technology**(6 credits)*****Course Learning Outcomes***

1. To elucidate principles of safety building design and plant layout.
2. To elucidate guidelines in maintenance for safety buildings.
3. To elucidate principles of working with machines and various equipment, and safe use of machines instead of manpower.
4. To elucidate principles of use and store of tools and working equipment.
5. To elucidate principles of storage of chemicals and hazardous substances, working with flammable substances, and fire protection.
6. To be able to preparation of emergency plan.
7. To be able to operate basic fire fighting.
8. To elucidate principles of safety in construction work and working in confined spaces.

Course Description

Building design and plant layout; maintenance for safety buildings; safety working with machines; air pressure pipe system, boiler, air compressor, and use of machines instead of manpower; use and store of tools and working equipment; storage of chemicals and hazardous substances; working with flammable substances, and fire protection; preparation of emergency plan; safety in construction work and working in confined spaces.

54133 Toxicology and Preventive Medicine**(6 credits)*****Course Learning Outcomes***

1. To acquire knowledge and understanding of principles and toxicological methods.
2. To elucidate health risk assessment.
3. To acquire knowledge and understanding of preventive medicine.
4. To acquire knowledge and understanding of development of work performance.
5. To elucidate causes and symptoms of occupational diseases.
6. To elucidate guidelines for diagnosis of occupational diseases.
7. To elucidate planning for surveillance and prevention of occupational diseases.
8. To be able to apply knowledge on toxicology and preventive medicine in occupational health and safety works.

Course Description

Principles of toxicology; process of chemical toxicity, mechanism and body reaction while exposing toxic substances; principles of testing and determination of chemical standards in environment and human body; hazard index; analytical instruments on toxicology; critical and common used chemicals; and pollution from industrial and agricultural activities; and health risk assessment.

Knowledge of preventive medicine in development of work performance; study of body mechanism under condition affecting operators; causes and symptoms of occupational diseases; principles for basic diagnosis of occupational diseases; procedures for examination of occupational diseases; occupational health surveillance, and prevention of occupational diseases.

54134 Ergonomics and Industrial Psychology**(6 credits)*****Course Learning Outcomes***

1. To elucidate body structural system, limitation, and relationships among human, machine, equipment, and working environment.
2. To elucidate concepts, principle, and methods of ergonomics, and industrial and organizational psychology.
3. To predict, search, and assess risk and impact from improper factors and working based on principles and methods of ergonomics, and industrial and organizational psychology.
4. To apply knowledge on ergonomics, and industrial and organizational psychology in preventive planning, controlling, and rectification of work problems, development, health promotion, and work efficiency.

Course Description

Human factor; body structural system; human proportional size; work physiology; ergonomics concepts and principles, survey, analysis, and assessment of ergonomics risk; prevention and solving ergonomics problems, relevant standards and laws; application of ergonomics principles in design, selection, or improvement of workplace; working condition; equipment and working manner, stress and fatigue from work; concepts of industrial and organizational psychology; assessment and psychological testing; principle and psychological methods in personnel recruitment and selection; training and job teaching for personal development; leader and work motivation; psychological knowledge application for preventing, developing, promoting health and work efficiency

54135 Professional Experience in Occupational Health, Safety and Environment**(6 credits)*****Course Learning Outcomes***

1. To be able to use concepts and principles on occupational health and safety to appropriately apply in actual situations.
2. To elucidate roles and operations of professional safety officer at work.
3. To elucidate concepts and principles of creating and promoting good working atmosphere, creating human relations and teamwork.
4. To elucidate principles of co-ordination, job teaching, training, and supervision.
5. To elucidate professional ethics.
6. To be able to analyze situations and problems on occupational health and safety and working environment and prepare plans and projects on occupational health and safety.
7. To elucidate guidelines for applying occupational health and safety management system.

Course Description

Application of concepts and principles on occupational health and safety to practice; roles and operations of professional safety officers; creating and promoting good working atmosphere; creating human relations and teamwork; co-ordination, job teaching, training, and supervision; professional ethics; analysis of situations and problems on occupational health and safety and working environment and prepare plans and projects on occupational health and safety in workplace; preparation of plans and projects on occupational health and safety; application of occupational health and safety management system; provision of seminars/ special problems on occupational health and safety.

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