Course Syllabus

1. Name of Curriculum Bachelor of Science (Biological Science)
Faculty/ Institute/College International College, Mahidol University

2. Course Code ICBI 407
Course Title Occupational Health and Safety

3. Number of Credits 4(4-0-8) (Lecture / Lab./self-study)

4. Prerequisite none

5. Type of Course Elective course

6. Trimester / Academic year
Third Trimester of every academic year

7. Course Condition
Number of students is 20-30.

8. Course Description
Environmental factors at work regarding workers' health and safety, such as air, water, food, chemical or biological materials handled in the production line, including waste and waste disposal; evaluation harmful effects of such factors for controlling them; prevention of unsatisfaction and risk assessment in the workplace.

9. Course Objective
By the end of the course, students should be able to
-Understand environmental factors at work regarding workers' health and safety.
-Know how to handle chemical or biological materials.
-Know how to evaluate harmful effects of various factors.
-Prevent the unsatisfaction and risk assessment in the workplace.

10. Course Outline

week	Topics/Seminar	Hours			Instructor
		Lecture	Lab	Self-study	
1	Introduction	4	0	8	William Bloch
2	Environmental factors that can cause harmful effects on health and safety	4	0	8	William Bloch
3	Environmental management I	4	0	8	William Bloch
4	Environmental management II	4	0	8	William Bloch
5	Chemicals handling	4	0	8	William Bloch
6	Biological materials handling	4	0	8	William Bloch
7	Midterm Exam	4	0	8	William Bloch
8	Chemical wastes and wastewater management	4	0	8	William Bloch

9	Evaluation of harmful factors	4	0	8	William Bloch
10	Risk assessment in the workplace	4	0	8	William Bloch
11	Case study	4	0	8	William Bloch
Final Examination					
	Total	44	0	88	

11. Teaching Method *(s)*

1. Lecture
2. Suggested readings
3. Discussion in class

12. Teaching Media

1. Powerpoint Presentations
2. Texts and teaching materials

13. Measurement and Evaluation of Student Achievement

Student achievement is measured and evaluated by

13.1 The ability to describe the environmental factors at work regarding workers' health and safety.

13.2 The ability to handle chemical or biological materials.

13.3 The ability to evaluate harmful effects of various factors.

13.4 The ability to prevent the unsatisfaction and risk assessment in the workplace.

Student's achievement will be graded according to the college and university standard using the symbols: A, B+, B, C+, C, D+, D and F. Minimal passing level is 60%. Student who earns 85% up will have Grade A, 80-84% Grade B+ , 75-79% Grade B, 70-74% Grade C+, 65-69% Grade C, 60-64% Grade D+, 55-59% D, less than 55 Grade F. Students must attend at least 80% of the total class hours of this course.

Ratio of mark	
Midterm Examination	40%
Final Examination	40%
Assignments and quizzes	20%
Total	100%

Range judges : $X \pm 2SD$ will be C^{+} - C

14. Course evaluation

14.1 Students' achievement as indicated in number 13 above.

14.2 Students' satisfaction towards teaching and learning of the course using questionnaires.

15. References

Anguis, R. and Seaton, A. Practical occupational medicine. USA. The Publisher Hodler Headline. 2005.

Campbell, R.D. & Bragshaw, M. Human performance and limitations, 3rd Edition. USA. Blackwell. 2005.

Waring, A. Safety management systems. 1st Edition. USA. Wadsworth Publishing Co. 1995.

Quinlan, M and Mayhew, C. Systematic occupational health and safety management: perspectives on an international development. USA. Elsevier. 2000.

16. Instructors

Dr. William Bloch

17. Course Coordinator

Associate Professor Dr. Prayad Pokethitiyook