

# On-campus M.S. degree curriculum

## Department of Occupational Safety and Health

### **Educational goals:**

1. Strengthen students' ability to think critically and communicate effectively,
2. Develop and participate in occupational safety and health research,
3. Foster the ability to apply theories and principles to real-world problems.

### **Department requirements:**

1. The following curriculum applies to students who were admitted to the DOSH on-campus M.S. degree program in Sept. 2021;
2. A minimum of 32 credits is required for completion of degree program, including 8 obligatory credits, 6 thesis credits and 18 elective credits. The elective courses must include 6 credits from within- major and 2 credits from cross-major courses.

**Obligatory course (14 credits):**

Course name	Credit	Semester
Epidemiology	4	1st
Seminar (I)	1	1st
Seminar (I)	1	2nd
Seminar (II)	1	3rd
Seminar (II)	1	4th
M.S. Thesis	6	4th
Total credits	14	

**Elective courses (62 credits):**

Course name	Credit	Semester
Environmental chemistry	2	1st
Physical & mental workload assessment	2	1st
Indoor environmental quality	2	1st
Biostatistics (I)	2	1st
Biohazards	2	1st
Aerosol technology	2	1st
Occupational epidemiology	2	1st
Occupational hygiene	2	1st
Safety engineering	3	1st
Occupational & environmental toxicology	2	1st
Transport of contaminants	2	2nd
Control of noise & vibration	2	2nd
Research design	2	2nd
Fire & explosion prevention	2	2nd
Industrial safety management	2	2nd
Risk and hazard assessment	2	2nd
Fundamental of safety sciences	2	2nd
Environmental monitoring at workplace	2	2nd
Engineering control of workplace environment	2	2nd
Applied ergonomics	2	2nd
Biostatistics (II)	2	2nd
Good laboratory practice	2	2nd
Exposure assessment & biological monitoring	2	2nd
Scientific writing	2	2nd

**Elective courses (62 credits):**

Course name	Credit	Semester
Chemical process safety	2	3rd
Environmental management	2	3rd
Reading of professional literatures	2	3rd
Health & environmental risk assessment	2	3rd
Environmental & occupational medicine	2	4th
Process safety in semiconductor manufactory	2	4th
Special topics on occupational safety & health management	2	4th
Total credits	62	