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| Course Name [科目名] | Process Safety and Health Management |
| Instructor Name [教員] | Yoshiyuki Yamashita, Wuled Lenggoro, Teiji Kitajima |
| Office Hours and Contact Information  [オフィスアワー、連絡先] | Office hours: encourage appointments by e-mail  Location: 13-804, e-mail: [yama\_pse@cc.tuat.ac.jp](mailto:yama_pse@cc.tuat.ac.jp) (Yamashita)  Base-224, e-mail: [lenggoro@cc.tuat.ac.jp](mailto:lenggoro@cc.tuat.ac.jp) (Lenggoro)  1-108, e-mail: [teiji@cc.tuat.ac.jp](mailto:teiji@cc.tuat.ac.jp) (Kitajima) |
| Course Number |  |
| Course Structure [授業形態] | Lecture |
| Term, Meeting Days, Time and  Location  [開講時期、時間、場所] |  |
| Course Credits [単位数] | 3 |
| Course Overview [概要] | This course will provide the student with the ability to manage process safety, abnormal situation management, and environmental health issues in chemical industry. |
| Course Key Words [キーワード] | Process Safety, Abnormal Situation, Environmental Health |
| Academic Goal [目標] | 1. capable to understand process safety, abnormal situation, and environmental health.  2. capable to manage safety and health. |
| Course Schedule [授業内容] | Introduction to Process Safety Management (by Dr. Kitajima)   * Process Safety Basics * The Four Pillars of Risk Based Process Safety (RBPS) * The Process Safety Management System   Introduction to Abnormal Situation Management (by Dr. Yamashita)   * Definition of Normal and Abnormal Situation * Detection of Abnormal Situation * Diagnosis of Abnormal Situation   Introduction to Environmental Health (by Dr. Lenggoro)   * Properties of particulate matters (in the gas-phase) * Transport processes: From molecular to global scales * Engineered nanomaterials: Measurement and risk assessment |
| Textbooks, References,  and Supplementary Materials  [テキスト、参考書、その他] | CCPS: Introduction to Process Safety for Undergraduates and Engineers, Wiley, 2016.  Handouts and materials given on or before the lectures. |
| Grading Philosophy  (Percentage / Criteria / Methodology)  [成績評価の方法] | Examinations, Hands-on Exercises, and Reports |
| Other  (i.e. Expectations on Classroom  Conduct and Decorum etc.)  [その他] |  |