MODULE HANDBOOK

Module Name	ICT- Based Chemistry Learning
Module level	Bachelor
Abbreviation, if applicable	
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	3rd/Third Year
Module coordinator(s)	Dr. Sukarmin, M.Pd.
Lecturer(s)	Kusumawati Dwiningsih, S.Pd., M.Pd.
Language	Indonesian
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester:	2 hours-lecture (50 min per hours)
Workload:	1 CU for bachelor degree equals 3 work hours per week or 170 minutes (50' face to face learning, 60' structured learning, and 60' independent learning). In one semester, courses are conducted in 14 weeks (excluding mid and end-term exam). Thus, 1 CU equals 39.67 work hours per semester. One CU equals to 1.59 ECTS.*
Credit points:	2 CU = 2 x 1,59 = 3, 18 ECTS
Prerequisites course(s):	-
Targeted learning outcomes:	1. Making use of learning resources and ICT learning chemistry in accordance with the characteristics of the material. 2. Having knowledge about the selection and presentation of ICT-based learning media in chemistry lessons. 3. Making decisions in choosing and presenting ICT-based learning media in chemistry lessons. 4. Having a responsible attitude in selecting and presenting ICT-based learning media in chemistry lessons.
Content:	1. Characteristics of SKL Chemistry SMA and SMK. 2. The relationship between student characteristics, ICT-based learning media, and chemical materials. 3. ICT media selection and search. 4. Development of ICT media-based learning tools.
Study / exam achievements:	Students are considered to be competent and pass if at least get score 55. Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) & 30% final exam (UAS). Table index of graduation

	• A = 4 (85 ≤-≥ 100) • A- = 3,75 (80 ≤-< 85) • B+ = 3,5 (75 ≤- < 80) • B = 3 (70 ≤-< 75) • B- = 2,75 (65 ≤-<75) • C+ = 2,5 (60 ≤-<65) • C = 2 (55 ≤-<60) • D = 1 (40 ≤-<55) • E = 0 (0 ≤-<40) •
Media:	Computer, LCD, Whiteboard
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and project-based learning
Literature:	1. Bhowon , Minu Gupta., Laulloo , Sabina Jhaumeer., Li Kam Wah, Henri., Ramasami, Ponnadurai. 2009. Chemistry Education in the ICT Age. Réduit, Mauritius: Springer 2. Heinich, R., Molenda. (1999). *Instructional Media and Technologies for Learning.* USA: Prentice Hall. 3. Indriana, Dina. 2011. *Ragam Alat Bantu Media Pengajaran*. Yogyakarta: DIVA Press. 4. Johannes Krugel. 2020. Web-Based Learning in Computer Science: Insights into Progress and Problems of Learners in MOOCs. Singapore: Springer Nature 5. John J. Clement and Mary Anne Rea-Ramirez. 2008. Model Based Learning And Instruction In Science. USA: Springer 6. LEE, Wing On., HUNG, David Wei Loong., TEH, Laik Woon,. 2015. Authentic Problem Solving and Learning in the 21st Century. Singapore: Springer 7. Michail Giannakos. 2020. Non-Formal and Informal Science Learning in the ICT Era. Singapore: Springer Nature 8. Moursund, David., 2005. Introduction to Information and Communication Technology in Education. Amerika Serikat: University of Oregon 9. Sadiman. 2009. *Media Pendidikan*. Jakarta **10.** Shank , Patti. 2015. The Online Learning Idea Book: 95 Proven Ways to Enhance Technology-Based and Blended Learning. Amerika: John Wiley & Sons, Inc.