Module Description
Application of Analytic Chemistry and Organic Chemistry

Module designation	Application of Analytic Chemistry and Organic Chemistry
Module code	23G03110602
Semester(s) in which the module is taught	2nd semester
Person responsible for the module (lecturers)	❖ Prof. Dr. Ir. Meta Mahendradatta ❖ Dr. rer.nat. Ir. Zainal, STP., M.Food.Tech.
Language	Indonesian language
Relation to curriculum	Compulsory course
Teaching methods	Laboratory practice
Workload	Total workload (estimated): 91 hours of practicum
Credit points	2 credit points = 3.24 ECTS
Required and recommended prerequisites for joining the module	
Module objectives/ Intended Learning Outcomes (ILO)	ILO 3. Demonstrates effective communication of scientific knowledge both verbally and in written form, adhering to academic and professional standards (S) ILO 5. Applies the principles of food science and technology, statistics, and computer science to implement good manufacturing practices in food industry management (C2)
	CLO 1. Students can practically practice analytical chemistry concepts CLO 2. Students can practically practice organic chemistry concepts CLO 3. Students can organize and collaborate with teams in practicing analytical chemistry and organic chemistry concepts
Content	❖ Analytical chemistry classic method ❖ Analytical chemistry instrumentation method ❖ Organic chemistry
Examination form	Writing (essay)

<table>
<tr><td>Study and examination requirements</td><td>Examination requirements: Attendance above 80%

❖ Final Report of Practicum: 70%
❖ Midterm exam: 15%
❖ End of semester exam: 15%

Grading:
<table>
<tr><th>Numerical range</th><th>Letter grade</th><th>Conversion value</th></tr>
<tr><td>85 - 100</td><td>A</td><td>4.00</td></tr>
<tr><td>80 - < 85</td><td>A-</td><td>3.75</td></tr>
<tr><td>75 - < 80</td><td>B+</td><td>3.50</td></tr>
<tr><td>70 - < 75</td><td>B</td><td>3.00</td></tr>
<tr><td>65 - < 70</td><td>B-</td><td>2.75</td></tr>
<tr><td>60 - < 65</td><td>C+</td><td>2.50</td></tr>
<tr><td>50 - < 60</td><td>C</td><td>2.00</td></tr>
<tr><td>40 - < 50</td><td>D</td><td>1.00</td></tr>
<tr><td>< 40</td><td>E</td><td>0.00</td></tr>
</table>
If student(s) receives(s) a score below 40, student(s) must retake the course</td></tr>
<tr><td>Reading list</td><td>1. Belitz, H.-D. W. Grosch und P. Schieberle, 2001. Lehrbuch der Lebensmittelchemie, Springer-Verlag, Berlin, Heidelberg, New York.
2. Potter, N.N. and J.H.Hotchkiss, 1998. Food Science, 5th Ed. Springer Science+Business Media, Inc., New York.
3. Schwedt, Georg., 2005. Taschenatlas der Lebensmittelchemie. Wiley-Vch Verlag, Weinheim.
4. Walstra, P. Physical Chemistry of Foods. 2003. Marcell Dekker, Inc. New York
5. Kusnandar, F. 2010. Food Analysis. IPB Press.
6. Fessenden R. J and Fessende J. S., Organic Chemistry. Third edition. Editor: Aloysius H. Erlangga Publisher, 1982
7. Paula Y.B., Organic Chemistry. Pearson Education. 2017
8. Jonathan C., Nick G., and Stuart W., Organic Chemistry. Oxford University Press. 2012
9. Hans D.B., Werner G., and Peter S., Food Chemistry. Springer. 2009</td></tr>
<tr><td>Date of last amendment</td><td>2 Maret 2024</td></tr>
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