

Module Name	Processing Unit Planning
<b>Module Level, if applicable</b>	Advanced
<b>Code if Applicable</b>	320222154
<b>Subtitle, if applicable</b>	-
<b>Courses, if applicable</b>	320222154 Processing Unit Planning
<b>Semester(s) in which the module is taught</b>	6 <sup>th</sup>
<b>Person responsible for the module</b>	Mochammad Wachid, S.TP., M.Sc
<b>Lecturer</b>	Mochammad Wachid, S.TP., M.Sc
<b>Language</b>	Indonesian
<b>Relation to curriculum</b>	Elective Course for undergraduate program in Department of Food Technology, Faculty of Agriculture and Animal Science
<b>Type of teaching</b>	Lecture, Project
<b>Workload</b>	<ul style="list-style-type: none"> <li>● Lecture: 2 SKS X 50 minutes X 16 weeks</li> <li>● Project: 2 SKS X 60 minutes X 16 weeks</li> <li>● Independent learning: 2 SKS X 60 minutes X 16 weeks</li> </ul>
<b>Credit points</b>	2 SKS X 1.5 = 3 ECTS
<b>Requirements according to the examination regulations</b>	<ol style="list-style-type: none"> <li>1. Registered in this course</li> <li>2. Minimum 80% attendance in this course</li> </ol>
<b>Recommended prerequisites</b>	Food Safety dan Industrial Sanitation, Processing Machinery and Equipment, Food Processing Technology
<b>Module Objectives (Intended learning outcomes)</b>	<p>On successful completion of this course, student should be able to :</p> <ul style="list-style-type: none"> <li>● Explain the understanding and scope of food processing plant design.</li> <li>● Explain the Factory Design process from idea development to factory establishment.</li> <li>● Analyze product design and processing processes for proper plant design.</li> <li>● Evaluate the process design of appropriately selected food products.</li> <li>● Calculate the increase in the scale of the food production process.</li> <li>● Determine the materials and tools used in food processing correctly.</li> <li>● Determine the location of the food processing plant.</li> <li>● Design the layout of the food processing plant.</li> <li>● Design food processing plants departments.</li> </ul>

<b>Module Content</b>	<p>This course starts from the development of ideas or research results on a food product into a process design which is then evaluated for technical and economic feasibility. Processing unit planning activities include: product design, process design &amp; scale up, financial planning, plant location, physical planning to meet plant needs, including: structure design; plant layout design; and material handling system design.</p>
<b>Study and examination requirements and forms of examination</b>	<p>Cognitive: Midterm exam, Final exam, Quizzes, Assignments</p> <p>Affective: Assessed from the element /variables achievement, namely (a) Contributions (attendance, active, role, initiative, and language), (b) Being on time, (c) Effort.</p>
<b>Media employed</b>	<p>Classical teaching tools with white board and power point presentation</p>
<b>Recommended Literature</b>	<ol style="list-style-type: none"> <li>1. Timothy, J., Bowser. (2013). Food Processing Facility Design. 571-597. doi: 10.1016/B978-0-12-385881-8.00021-5</li> <li>2. J.T., Holah. (2014). Hygienic factory design for food processing. 53-90. doi: 10.1533/9780857098634.2.53</li> <li>3. Zeki, Berk. (2018). Elements of food plant design. 657-668. doi: 10.1016/B978-0-12-812018-7.00029-4</li> </ol>
<b>Date of last Amendment</b>	<p>20 January 2022</p>