

Module Handbook : Scientific and Industrial Skill Development

Module designation	Practical courses to help students develop scientific and industrial skills through internships or activities at research centers, laboratories, or the fishing industry, as well as conducting seminars, conferences, scientific writing (not journal writing as a graduation requirement), competing in competitions, business practices, product development, or performing community service. Basically, students will gain practical experience in research activities, industry, and community service
Semester(s) in which the module is taught	Third semester
Person responsible for the module	1. Dr. Eko Setyobudi, S.Pi., M.Si. 2. Dr. Senny Helmiati, S.Pi., M.Sc.
Language	Indonesian
Relation to curriculum	<i>Compulsory Course</i>
Teaching methods	Activities: a) Lecture (lecture and discussion) b) Examinations c) Take home assignments d) Quiz e) Student presentation
Workload (incl. contact hours, self-study hours)	Working hours: 2 credits of theory. Total Workload: 2 SCU (Semester Credit Unit) = 2 x 45 hours within 1 semester = 3.34 ECTS.
Credit points	2 Credit points
Required and recommended prerequisites for joining the module	<i>None</i>

Module objectives/intended learning outcomes	<p>Program Learning Outcomes:</p> <p>PLO5: Critically evaluate and innovate to solve problems in aquaculture, aquatic resource management, or the processing of fishery products.</p> <p>PLO6: Assess and compile scientific concepts and research findings based on scientific principles, procedures, and ethics, producing theses and publications in accredited scientific journals.</p> <p>PLO8: Evaluate and develop science and technology through inter-, multi-, and trans-disciplinary research and innovation in aquaculture, the processing of fishery products, or fisheries resources management.</p> <p>Course Learning Outcomes:</p> <p>CLO1: Able to convey scientific ideas both orally and in writing. (PLO5) & (PLO6)</p> <p>CLO2: Able to analyze and assess activities in the fisheries and marine industry. (PLO6) & (PLO8)]</p>																							
Content	<ol style="list-style-type: none"> 1. Engage in direct scientific or laboratory activities (4 times meeting) 2. Engage in direct industrial (4 times meeting) 3. Engage in direct community service activities (4 times meeting) 4. Group Discussion I 5. Group Discussion II 																							
Examination forms	<table border="1" data-bbox="626 1298 1405 1686"> <thead> <tr> <th data-bbox="626 1298 812 1379">Evaluation Basis</th><th data-bbox="812 1298 998 1379">Evaluation Components</th><th data-bbox="998 1298 1184 1379">Percentages</th><th data-bbox="1184 1298 1321 1379">CLO1</th><th data-bbox="1321 1298 1405 1379">CLO2</th></tr> </thead> <tbody> <tr> <td data-bbox="626 1379 812 1484" rowspan="2">Participatory Activity</td><td data-bbox="812 1379 998 1484">Group presentation</td><td data-bbox="998 1379 1184 1484">40%</td><td data-bbox="1184 1379 1321 1484">√</td><td data-bbox="1321 1379 1405 1484"></td></tr> <tr> <td data-bbox="812 1484 998 1545">Quiz</td><td data-bbox="998 1484 1184 1545">20%</td><td data-bbox="1184 1484 1321 1545"></td><td data-bbox="1321 1484 1405 1545">√</td></tr> <tr> <td data-bbox="626 1545 812 1664" rowspan="2">Project results/case study results</td><td data-bbox="812 1545 998 1664">Individual/ Group Assignment</td><td data-bbox="998 1545 1184 1664">40%</td><td data-bbox="1184 1545 1321 1664"></td><td data-bbox="1321 1545 1405 1664">√</td></tr> <tr> <td data-bbox="812 1664 998 1686">Total</td><td data-bbox="998 1664 1184 1686">100%</td><td data-bbox="1184 1664 1321 1686"></td><td data-bbox="1321 1664 1405 1686"></td></tr> </tbody> </table> <p data-bbox="626 1702 1405 1769"><i>The total percentage of participatory activities and project results/case studies/PBL results is at least 50%.</i></p>	Evaluation Basis	Evaluation Components	Percentages	CLO1	CLO2	Participatory Activity	Group presentation	40%	√		Quiz	20%		√	Project results/case study results	Individual/ Group Assignment	40%		√	Total	100%		
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Study and examination requirements	Students can join the course by registering the study plan (KRS) to enroll the chosen subjects in each academic semester. examination requires the portofolio submission.																							

Reading list	<ol style="list-style-type: none"> 1. FAO. (2019) <i>Ecosystem Approach to Fisheries Management Training Course (Inland Fisheries): Handbook for Trainees</i>. Rome: Food and Agriculture Organization. 2. Mohanty, B.P., Sinha, A., Phand, S. and Das, S. (eds.) (2020) <i>Capacity Building in Fisheries and Aquaculture</i>. New Delhi: NIPA Genx Electronic Resources & Solutions. 3. Phand, S. and Das, S. (eds.) (2025) <i>Aquaentrepreneurship for the Sustainable Fisheries Sector Growth</i>. Hyderabad: National Institute of Agricultural Extension Management (MANAGE). 4. Suvetha, V. and Felix, S. (2026) <i>Fundamentals of Fisheries Extension Education</i>. New Delhi: Astral International. 5. Benetti, D.D. (ed.) (2025) <i>Applied Advanced Technologies in Marine Fish Aquaculture</i>. Amsterdam: Elsevier. 6. Deka, S.C., Seth, D. and Hulle, N.R.S. (eds.) (2020) <i>Technologies for Value Addition in Food Products and Processes</i>. Boca Raton: CRC Press 7. Bunting, S.W. (2024) <i>Principles of Sustainable Aquaculture: Promoting Social, Economic and Environmental Resilience</i>. 2nd edn. London: Routledge. 8. Drakeford, B. (ed.) (2025) <i>Fisheries and Blue Economy</i>. Basel: MDPI Books.
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