

THE MODULE HANDBOOK FACULTY OF BIOLOGY

## **Scientific Writing**

Module code	BID 20011IUP
Module level	2 <sup>rd</sup> year of Undergraduate Program in Biology
Abbreviation, if applicable	-
Sub-heading, if applicable	-
Courses included in the module, if applicable	-
Semester/term	Even
Module coordinator(s)	Dr. Budi SetiadiDaryono, M.Agr.Sc.
Lecture(s)	<ol> <li>Dr. Budi Setiadi Daryono, M.Agr.Sc.</li> <li>Dra. Tuty Arisuryanti, M.Sc., Ph.D.</li> <li>SitiSumarmi, Ph.D.</li> <li>Dr.rer.nat. AndhikaPuspitoNugroho, M.Si.</li> </ol>
Language	English
Classification within the Curriculum	Compulsory course
Teaching format/class hours per week during the semester	This course is organized into 5 classes with one lecture in each class and planned to have 14 teaching weeks and2 weeks of examination.
Workload	Estimated working hour: 10,5 hours/week.
Credit points	2credits
Requirements	Scientific Method and Research Design (BID 20010IUP)
Learning goals/ competencies	<ol> <li>Knowledge and understanding         <ul> <li>Writing a research proposal and report correctly</li> <li>Creating and writing the title, abstract, problems and hypothesisof a research idea</li> <li>Presenting the results of a research in a table, graph, or histogram according to the global rules</li> <li>Using any information technology and communication either in Bahasa Indonesia or in English</li> <li>Writing an article in the national or international scientific magazine</li> </ul> </li> <li>Ability/intellectual skill         <ul> <li>Planning, doing,band reporting a scientific research on biology</li> <li>Analyzing and resolving a problem on biology</li> <li>Formulating and initiating a hypothesis</li> <li>Integrating and evaluating information and data</li> </ul> </li> </ol>



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	<ul> <li>from any resources</li> <li>e. Evaluating a research improvement including the plans, the processes, and the results.</li> <li>f. Applying a holistic approach in solving the problems and making a plan of it</li> <li>g. Applying the evaluation of costs, benefits, risks, securities, and the environmental impacts</li> </ul> 5. Attitude <ul> <li>a. Ability to appreciate the authenticity of ideas, concepts, and findings of others</li> </ul>
	<ul> <li>b. Ability to be sensitive to the changes and problems of biology within the global/regional/local area and attempt to resolve both individually or in a group</li> <li>c. Ability to appreciate any different views of thinking</li> </ul>
Content	Scientific Writing is a compulsory course about creating and publicing a scientific work (research plan, report, and paper) nationally or internationally. It is including the tips and tricks to make both written and oral research plan or report well. The course encourages the students to have ability in identifying research problems, creating a representative title, abstract, hypothesis, and report. A research report should consist of an introduction, literature review, method, results and discussion, conclusion, reference, and summary. Therefore, it is important to show how to write each part of the research report including how to make a table, graph, histogram, and its function. The course also encourages the students to be able to make a good presentation using power point slide or poster. The course also provides the knowledge about the ethics on biomedical research.
	The evaluation is based on the student's ability in creating a research proposal and delivering the results both orally and written, writing a paper for publication and press release.
	The learning method of the course is the combination of teacher center learning (TCL) and student center learning (SCL)
Study/exam achievements	<ul> <li>a. Midterm: 20 %</li> <li>b. Final examination: 30 %</li> <li>c. Assignment: 30 %</li> <li>d. Quiz: 20 %</li> </ul>
Forms of media	White board, notebook andLCD
Literature	a. Day, R.A. and B. Gastel. 2006. <i>How to Write and Publish a Scientific Paper</i> . Sixth edition. Greenwood



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Press. Westport.

- b. Fields, Maron L. 1982. Scientist and Food Scientiest, The Scientific Method, and Research Methods in A Food Scientific Laboratory. Hand-Out on Food Science and Nutrition Seminar. University of Missouri Colombia, Columbia, USA.
- c. McMillan, V.E. 1997. *Writing Paper in the Biological Sciences*. Bedford Books Boston.
- d. Nazir, M. 1988. Metode Penelitian. Ghalia Indonesia.
- e. Pechenik, J.A. and B.C. Lamb. 1994. *How to Write about Biology*. Longman.
- f. Pratiknya, A.W. 1993. *Dasar-Dasar Metodologi Penelitian Kedokteran dan Kesehatan*. Universitas Gadjah Mada, Yogyakarta.
- g. Rivai, Mien. 1995. *Pegangan Gaya Penulisan, Penyuntingan dan Penerbitan*. UniversitasGadjahMada, Yogyakarta.
- h. Watik, Ahmad Pratiknya. 1993. *Dasar-Dasar Metodologi Penelitian Kedokteran dan Kesehatan*. PT RajaGrafindo Persada, Jakarta