	CHEMICAL DEPARTMENT FSM DIPONGORO NIVERSITY	DOCUMENT LEVEL: PROCEDURE MANUAL	CODE: MP KIM-10
TITLE : RESEARCH ASSIGNMENT COURSES I AND II		ISSUED DATE: February 19, 2009	
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PROCEDURE MANUAL RESEARCH ASSIGNMENT COURSES (TR 1 and TR 2)

AIMS

This manual for the lecture procedure for the undergraduate program at the Department of Chemistry, FSM, Diponegoro University, aims to provide guidance to related parties in carrying out research assignments for the undergraduate program at the Department of Chemistry, FSM, Diponegoro University.

DEFINITION

Research assignments (TR) are courses that are expected to provide students with the ability to independently identify problems relevant to chemistry through a scientific approach based on the concepts and principles of chemistry as well as formulate problems, develop research plans, carry out research, observation, processing and analysis, as well as communicating the results of research through scientific writing in the form of a thesis or orally. Thus, students are expected to have the basic ability to apply knowledge and continue their higher studies. Research assignment students in carrying out their duties join one of the research groups or partners in Undip or outside Undip. Related to monitoring, evaluation and duration of completion of Research Tasks,

Research assignments (TR) are carried out under the guidance of a main supervisor (lecturer staff majoring in Chemistry) and one or two supervisor members in one of the research groups in the Department of Chemistry or partners. The supervisor's task is to guide research management, guide the implementation and monitoring of research as well as student thesis writing. The appointment of a supervisor is regulated by the Research Task coordinator together with the Head of the Laboratory based on the expertise in the research group. If necessary, a field supervisor may be available. Each supervisor guides a maximum of 5 students in each mentoring period. The TR material is facilitated by the supervisor by considering student suggestions, and is expected to be in accordance with the direction/map of the research group.

Research Task I

Research Assignment I (TR-1) is the first part of the Research Assignment course which provides students with the ability to develop a research plan which includes studies of the literatures, preparation of a methodology based on a preliminary study of research. The output of the Research Assignment course I is the Research Assignment Report I with contents such as a thesis which includes CHAPTER I, CHAPTER II, CHAPTER III and CHAPTER IV (if data already exists) as well as further research plans. Research Assignment Report I is required to refer/refer to at least the four most recent international journals (last 5 years). Evaluation/assessment of Research Task I is carried out by

Supervisor I, Supervisor II, and if there is Supervisor III. The assessment components of Research Task I include: Main Problems [40%], Methodology [20%], Format [20%] and Language and Literature [10%].

The output of the Research Assignment course I is the Research Assignment Report I with contents such as a thesis which includes CHAPTER I, CHAPTER II, CHAPTER III and CHAPTER IV (if data already available) as well as further research plans. Research Assignment Report I is required to refer to at least the four latest international journals (last 5 years). Writing Research Assignments I submitted to the Guidelines for Writing Research Assignments, Department of Chemistry, Faculty of Science and Mathematics, Diponegoro University, Semarang.

Research Task II

Research Task II (TR-2) is the second part of the Research Assignment course. This course provides students with the ability at the end of the study period to formulate problems, develop research plans, carry out research, observation, processing and analysis, as well as communicating research results through scientific writing in the form of a thesis or orally [Research Assignment Examination Session/Thesis Examination].

Students who take the Research Assignment Course II are required to prepare a Research Task II Report in the form of a Thesis. Research Assignment Report II [Thesis] is required to refer to a minimum of four latest international journals (last 5 years). To assess or evaluate a student's ability to complete TR-2, after completing the Thesis, a Research Task II/Thesis Examination is held. Research Assignment I can be taken if students have taken a minimum of 110 credits, GPA > 2.00 and no E grades. Students can take Research Assignment II courses after completing Research Assignment Report I

REFERENCE

1. Diponegoro University Academic Regulations (Regulation of Chancellor 364/PER/H7/2009.)

PROCEDURE

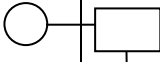














Research Task I

1. Students fill out research interest forms which are categorized based on laboratory groupings (Lab. Physical Chemistry, Lab. Analytical Chemistry, Lab. Organic Chemistry, Lab. Inorganic Chemistry and Lab. Biochemistry) in the Department of Chemistry.
2. Students submit the TR I registration form and other required documents to the TA Coordinator
3. The research task coordinator groups students based on student interests and the available quotas in each laboratory (1 lecturer can be the main supervisor for a maximum of 5 students).
4. The results of the grouping are then submitted to each head of the laboratory
5. The head of the laboratory determines the supervisors I and II whose mechanism is submitted to each laboratory.
6. The head of the laboratory submits a list of supervisors I and II which are then recapitulated and submitted to the department

7. Students fill out KRS Research Task I
8. The Department verifies the feasibility of taking Research Assignment Course I
9. Department announces student advisory research assignment 1
10. Students consult with supervisors I and II to carry out research assignments I (research topics are determined by the supervisor based on the research road map of each supervisor)
11. Students prepare outlines and conduct seminars in the laboratory.
12. Students carry out preliminary research
13. Students prepare a research assignment report I as a requirement for graduation from the research assignment course I
14. The Advisory Lecturer submits the assessment form to the TR Coordinator/Department

**FLOW DIAGRAM
RESEARCH ASSIGNMENT COURSES I**

No.	Activities	Involved Parties					Time	Documents
		Std	Dept.	Coord.	Lab chief	Supervisor		
Research Task I								
1	Students fill out the registration form for research assignment I (the form can be downloaded on the chemistry department's website) and complete other required documents.	□ ↓					[End of semester VI] 6 Days	a. Research Assignment Registration Form I b. Copy of KRS c. Copy of KHS
2	Students submit the TR I registration form and other required documents to the TA Coordinator	□ ↓					[End of semester VI] 1 day	a. Research Assignment Registration Form I b. FC KRS c. FC KHS
3	The research coordinator groups students based on student interests and the available quota in each laboratory	□ ↓		□ ↓ ○			[End of semester VI] 6 Days	List of research assignments I

4	The research coordinator submits the grouping results to the head of the laboratory					[End of semester VI] 1 day	List of research assignments I
5	The head of the laboratory determines the supervisor I and II					[End of semester VI] 6 Days	
6	The head of the laboratory submits a list of supervisors I and II for research assignments I to the TA Coordinator					[End of semester VI] 1 day	List of leaders I and II
7	Students fill out KRS Research Task I					1 week	KRS
8	The Department verifies the feasibility of taking Research Assignment Course I					1 week	Announcement of supervisors I and II
9	Department announces student advisory research assignment 1					1 day	
10	Students consult with supervisors I and II					1 month	
11	Students take part in a research outline seminar in the laboratory					1 day.	
12	Students carry out preliminary research					2 months	Research Logbook
13	Students prepare a Research Assignment Report I					1 month	Research assignment report draft 1
14	Students submit a research outline and research assignment report I to the department					1 week	- outline - TRI lap - TRI value of pemb I and II
15	Supervisor submits the assessment form to the TR coord./Department					1 week	Scoring form

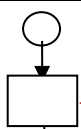
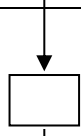

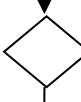

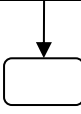
Procedure

Research Task II

1. Students fill out KRS Research Task II
2. Students fill out the Research Task II registration form (the form can be downloaded on the chemistry department's web) and complete other required documents.
3. Students submit the TRII registration form and other required documents to the Department's administration
4. Students conduct research in the laboratory according to the research topic
5. Student prepares research assignment report II
6. Students conduct research progress seminars in the laboratory
7. Implementation of the feasibility of the thesis exam in the laboratory
8. Implementation of the thesis exam

FLOW DIAGRAM RESEARCH ASSIGNMENT COURSES II

No.	Activities	Involved Parties					Time	Documents
		Std.	Dept.	Research Coord.	Chief Lab	Supervisor		
1	Students fill out KRS Research Task II	□					Semester VII	KRS, KHS, Form TR II
2	Students fill out the registration form for research assignments II (the form can be downloaded on the chemistry department's web) and complete other required documents.	↓ □	←→ □				1 week	a. Research Task II Registration Form b. FC KRS c. Work Permit at Laboratory
3	Students submit the TR II registration form and other required documents to the Department's administration	↓ □	←→ □	←→ □			According to the schedule of the department	Form TR II
4	Students conduct research in the laboratory according to the research topic	↓ □ ○			←→ □		3 months	Work Permit in the Laboratory Logbook

5	Student prepares research assignment report II						1 month	Thesis Draft
6	Students conduct Research Assignment Development Seminar II in the laboratory						1 week	Thesis Draft
7	Seminar on Research Assignment II Feasibility Examination in the laboratory						According to the lab schedule .	Research Assignment Exam Eligibility Form
8	Research Assignment Examination II [Thesis]						According to the schedule of the department	

ATTACHMENT

I. Provisions:

1. Students can take a research assignment course I if they have taken minimum of 110 credits, GPA > 2.00 and no E grade.
2. Students can only take research assignment course II if they have passed the research assignment course I

II. Requirements/attachments:

1. Copy of KRS in the current semester
2. Copy of last semester transcript
3. Students' interest in certain laboratories is a consideration in determining the laboratory where students will carry out research, but there are restrictions related to lecturers' EWNP.

III. Parties Involved in the Process

1. College student
2. head of program
3. Research Task Coordinator
4. Head of laboratory
5. Supervisor I and II
6. Department Administration Staff

IV. Outline writing format

V. Format of writing TR I . Report

VI. TR II Report Writing Format (Thesis)

VII. Examples of related documents.