Module/Course Description
Forest Fire (SVK 335)

A. Module Identity		
1.	Name	Forest Fire
2.	Code	SVK361
3.	Credit	3 (2-3)
4.	Semester	Even/Odd
5.	Pre-requisite	-
6.	Coordinator	Prof. Dr. Ir. Bambang Hero Saharjo, M.Agr
7.	Lecturers	1. Prof. Dr. Ir. Bambang Hero Saharjo, M.Agr 2. Dr. Ir. Lailan Syaufina, M.Sc
8.	Language	Indonesian
9.	Program(s) in which the course is offered	Internal department: Forest Management Study Program Other departments: Forest Technology Study Program, Forest Resource Conservation and Ecotourism Study Program, Silviculture Study Program
10.	Type of teaching	a. Traditional classroom: 100 % b. Blended system: Traditional classroom….%, Online….% c. e-Learning system: ……..% d. Others: ……..%

B. Workload of course components (total contact hours and credits per semester)								
Credit		Contact Hours**				Self-Study	Other	Total
SKS *)	ECTS	Lecture	Class Exercise	Laboratory	Field Practice			
3		**28**	**42**			**56**		**126**

**) Semester credit unit according to the Indonesian higher educational system*
1 credit unit lecture = 2 hours/ week for lecture and 2 hours/ week for self-study within 14 weeks/ semester
1 credit unit class exercise or laboratory or field practice = 3 hours/week within 12-14 weeks/semester
***) 1 hour for lecture= 50 minutes; 1 hour for class exercise or laboratory or field practice = 60 minutes*

C. Module Objective (Learning Outcomes)
Setelah menyelesaikan mata ajaran ini mahasiswa akan dapat menjelaskan latar belakang terjadinya kebakaran hutan dan lahan, dampak kebakaran hutan terhadap ekosistem, serta prinsip-prinsip pengendalian kebakaran hutan.

D. Detailed Course Learning Outcomes (LO) in Relation to Learning Domains, Teaching Strategies, and Assignment Methods			
No.	**LO in Learning Domains**	**Teaching Strategies**	**Assessment Methods**
a.	**Knowledge**		
1.	Students are able to explain college plans and forest fire material, the meaning and scope of forest fires	Lecturer's explanation, discussion	Authentic assessment
2.	Students are able to explain the background and impact of forest fires on several fire incidents	Lecturer's explanation, discussion	Authentic assessment

3.	Students are able to explain the process of forest fires	Lecturer's explanation, discussion	Authentic assessment
4.	Students are able to explain combustion process and the types of fires	Lecturer's explanation, discussion	Authentic assessment
5.	Students are able to explain the role of climate in forest fires	Lecturer's explanation, discussion	Authentic assessment
6.	Students are able to explain the impact of fires on the soil / peat (physical and chemical properties)	Lecturer's explanation, discussion	Authentic assessment
7.	Students are able to explain the impact of fires on flooding and erosion	Lecturer's explanation, discussion	Authentic assessment
8.	Students are able to explain the impact of fires on microorganisms	Lecturer's explanation, discussion	Authentic assessment
9.	Students are able to explain the impact of fires on vegetation	Lecturer's explanation, discussion	Authentic assessment
10.	Students are able to explain the impact of fires on the lives of insects	Lecturer's explanation, discussion	Authentic assessment
11.	Students are able to explain the impact of fires on air quality	Lecturer's explanation, discussion	Authentic assessment
12.	Students are able to explain the impact of fires on human health	Lecturer's explanation, discussion	Authentic assessment
13.	Students are able to explain about efforts to prevent forest and land fires	Lecturer's explanation, discussion	Authentic assessment
14.	Students are able to explain the efforts to extinguish forest and land fires	Lecturer's explanation, discussion	Authentic assessment
b.	**Skills**		
1.	Student are able to explore the cause and impact of forest fire, study case in Indonesia	Lecturer's explanation, practicum, discussion	Authentic assessment
2.	Students are able to demonstrate and simulation to extinguish forest and land fires	Lecturer's explanation, practicum, discussion	Authentic assessment
c.	**Competences:**		
1.	Students demonstrate a willingness to participate in the class activities	Lecturer's explanation, practicum, discussion	Authentic assessment
2.	Students are able to complete all tasks and participate in class discussion	Lecturer's explanation, discussion, assignment	Authentic assessment

E. Module Content		
List of Topic	**Number of Weeks**	**Contact Hours**
Introduction and the meaning and scope of forest fire	1	2
Background and impact of forest fires	1	2
The principle of a fire triangle, the process of combustion and cause of fire	1	2
Fire behavior and type of fire	1	2
The role of climate in forest fires	1	2
Impact of fire on physical and chemical properties of soil / peat	1	2
The impact of fire on hydrology	1	2
Impact of fire on microorganisms	1	2
Impact of fire on vegetation	1	2
Impact of fire on insects	1	2
Impact of fire on air quality	1	2
The impact of fires on human health	1	2
Forest and land fire prevention	1	2
Extinguishing forest and land fires	1	2

F. Course Assessments			
No.	**Assessment Type *)**	**Schedule (Week Due)**	**Proportion of the Final Mark**
1.	Mid-Term Examination	The 8th Week	35%
2.	Final Examination	The 16th Week	35%
3.	Exercise Report/ Homework	Minimal 5 times in a semester	30%

**) Example: mid-term examination, final examination, quiz, homework, project, etc.*

G. Media Employed
Laptop, LCD, Microphone, White Board, Marker, Pointer

H. Learning Resources

h1. Textbooks:

1. Brown AA, Davis KP. 1973. Forest Fire: Control and Use. New York (US): McGraw Hill Book Co. Inc.
2. Chandler P, Cheney P, ThomasP, Trabaud L, Williams D. 1983. Forest Fire Vol I: Forest Fire Behaviour and Effects. New York (US): John Wiley & Sons.
3. DeBano LE, Neavy DG, Ffolliott PE. 1998. Fire's Effects on Ecosystems. New York (US): John Wiley & Sons, Inc.
4. Hawley RP, Stickel WP. 1956. Forest Protection. New York (US): John Wiley & Sons.
5. Whelan RJ. 1995. The ecology of fire. Cambridge University Press, Great Britain.
6. Wright HA, Bailey AW. 1982. Fire Ecology. New York (US): John Wiley and Sons.