

FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY  
DEPARTMENT OF INFORMATION TECHNOLOGY

Semester 1			Semester 2		
Course	SKS	ECTS	Course	SKS	ECTS
English 1	2	3	English 2	2	3
Systems Thinking	2	3	Ethics and Religious Philosophy	2	3
Basic Calculus	3	4	Data Structure and Algorithm Analysis	4	6
Discrete Mathematics	2	3	Operation Research	2	3
Database Concept	4	6	Linear Algebra	2	3
IT Fundamentals and Laboratory	3	4	Computer Network Fundamental and Laboratory	3	4
Algorithm and Programming	4	6	Object Oriented Programming	4	6
Professional Ethics	2	3	Web Programming Fundamental and Laboratory	3	4
<b>Total mandatory</b>	<b>22</b>	<b>32</b>	<b>Total mandatory</b>	<b>22</b>	<b>32</b>
<b>Extracurricular Courses</b>			<b>Extracurricular Courses</b>		
German Language and Culture 1	2		German Language and Culture 2	2	
Mandarin Language and Culture 1	2		Mandarin Language and Culture 2	2	
<b>Total</b>	<b>26</b>	<b>32</b>	<b>Total</b>	<b>26</b>	<b>32</b>

Semester 3			Semester 4		
Course	SKS	ECTS	Course	SKS	ECTS
Internship 1 (Indonesia)	3	12	English 3	2	3
Intellectual Behavior Development	1	1	Pancasila and Civic	3	4
Mobile Software Engineering and Laboratory	3	4	Statistic and Probability	2	3
Database Design and Implementation and Laboratory	3	4	Advanced Programming and Laboratory	3	4
Mathematics for Computer Science	2	3	System Analysis and Design	2	3
			Introduction to Artificial Intelligence and Laboratory	3	4
			Operating Systems and Platform	4	6
			Project Management	2	3
			Human Computer Interaction	2	3
<b>Total mandatory</b>	<b>12</b>	<b>24</b>	<b>Total mandatory</b>	<b>23</b>	<b>33</b>
			<b>Extracurricular Courses</b>		
			German Language and Culture 3	4	
			Mandarin Language and Culture 3	4	
<b>Total</b>	<b>12</b>	<b>24</b>	<b>Total</b>	<b>31</b>	<b>33</b>

Semester 5			Semester 6		
Course	SKS	ECTS	Course	SKS	ECTS
English 4	2	3	Internship 2 (abroad)	6	30
Indonesian Language	2	2			
Student Project	2	3			
Software Engineering	2	3			
Computer Security and Laboratory	3	4			
Numerical Analysis	2	3			
Web System and Technologies and Laboratory	3	4			
Introduction to Pattern Recognition	3	4			
Elective subject 1	2	3			
Elective subject 2	2	3			
<b>Total mandatory</b>	<b>23</b>	<b>32</b>	<b>Total Mandatory</b>	<b>6</b>	<b>30</b>
<b>Extracurricular Courses</b>					
German Language and Culture 4	4				
Mandarin Language and Culture 4	4				
<b>Total</b>	<b>31</b>	<b>32</b>	<b>Total</b>	<b>6</b>	<b>30</b>

Semester 7			Semester 8		
Course	SKS	ECTS	Course	SKS	ECTS
English 5	2	3	Thesis	6	15
Research Methodology	2	3	Oral Final Study Examination (OFSE)	3	4
Innovation and Entrepreneurship	2	3	Competence Development	2	2
Network Security and Laboratory	3	4	Enterprise Resource Planning	2	3
Data Mining	3	4			
Image Processing	4	6			
Multimedia System and Laboratory	3	4			
Elective Subject 3	2	3			
Elective Subject 4	2	3			
<b>Total mandatory</b>	<b>23</b>	<b>33</b>	<b>Total mandatory</b>	<b>13</b>	<b>24</b>
<b>Total</b>	<b>23</b>	<b>33</b>	<b>Total</b>	<b>13</b>	<b>24</b>

Elective subjects ( Semester 5)			Elective subjects ( Semester 7)		
System Administration and Cloud Computing	2	3	Business Intelligence	2	3
Internet Marketing	2	3	Game Programming	2	3
Pervasive and Ubiquitous Computing	2	3	Smartcard Technology	2	3
Business Process Management	2	3	Ethical Hacking and Forensic Investigation	2	3
Big Data Analytics	2	3			