



UNIVERSITAS  
INDONESIA

**CEP-CCIT**

FAKULTAS TEKNIK

FAKULTAS TEKNIK UNIVERSITAS INDONESIA  
CONTINUING EDUCATION PROGRAM  
CENTER FOR COMPUTING AND INFORMATION TECHNOLOGY

#### D. Program Teknologi Informasi Ekonomi Syariah (TIES)

### Overview

The development of information technology and the interest in Islamic economics has been rapidly advancing. Therefore, it is necessary to provide education to accelerate the role of information technology in the Islamic economy. The curriculum combines Islamic economics and finance concepts with cutting-edge information technology. The learning is to grasp the fundamental ideas and principles of Shariah economics and develop Shariah-compliant information technology systems and applications.

The program emphasizes the importance of professional and ethical behaviour in all aspects of the design and development of Shariah-compliant information technology systems and applications, intending to prepare students to become competent and ethical professionals who can contribute to the development of the Islamic finance industry through the use of information technology. The course is for people who want to work in the Islamic finance industry or create IT solutions for the Islamic finance industry.

### Exit Profile of TIES Curriculum

After completing all modules, the students should be able to:

- Demonstrate and implement the fundamental of Islamic economics and finance
- Analyze and assess the ethical and legal factors connected with the design and development of Shariah-compliant information technology systems and apps.
- Create Decision Support System and applications to satisfy the requirements of the Islamic finance sector.
- Identify, assess, and handle complex issues using analytical data and problem-solving abilities.
- Demonstrate a commitment to professional and ethical behaviour in implementing IT for Sharia business.
- Create a multi tier web application to enable information system or a decision support system.





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## Curriculum Contents

### Semester 1

Modules	Credits	
	Theory	Practical
Algorithm and Data Structure on Sharia Compliance	3	1
Introduction to Finance	3	0
Design and Implementing Relational Database Management System	3	1
Office Application Software	3	0
Statistics for Analytics	3	1
Introduction to Financial Accounting	3	0
<b>Total Credits</b>	<b>18</b>	<b>3</b>

### Semester 2

Modules	Credits	
	Theory	Practical
Sharia Commerce Concept	3	0
Introduction to Machine Learning	3	1
Object Oriented Programming	3	1
Sharia Compliance Accounting	3	0
Data Analytic Introduction	3	1
Information Systems Analysis and Design	3	0
Decision Support System	3	0
<b>Total Credits</b>	<b>21</b>	<b>3</b>





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Semester 3		
Modules	Credits	
	Theory	Practical
Data Analytic Programming	3	1
Mobile Application on Android Platform	3	1
Accounting Information System	3	0
Sharia Funding and Financing Products	3	0
Information System Security	2	1
Web Application	3	1
<b>Total Credits</b>	<b>17</b>	<b>4</b>

Semester 4		
Modules	Credits	
	Theory	Practical
Marketing and Operations Analytic	2	1
Data Exploration Programming	3	1
Data Analytic Project	1	3
Developing Enterprises Information System using Framework	3	1
Business Intelligence	2	1
<b>Total Credits</b>	<b>11</b>	<b>7</b>

