

## Academic program description form

**University name: Northern Technical University.**

**College/Institute: Technical Management Institute - Nineveh.**

**Scientific Department: Department of Financial and Banking Technologies.**

**Name of the academic or professional program: Technical Diploma - Financial and Banking Technologies.**

**Name of final certificate: Technical Diploma in Financial and Banking Technologies.**

**Study system: Courses - second level - first course - financial mathematics.**

**Description preparation date: 4/8/2024**

**Date of filling the file: 4/8/2024**

the signature:-

the signature:-

Name of scientific assistant:-M. Muhammad Osama Ahmed

Name of department head:-M.D. Loyalty Hazem Sultan

the date:-

the date:-

**Check the file before**

**Division of Quality Assurance and University Performance**

**Name of the Director of the Quality Assurance and University Performance Division:**

**the date**

**the signature**

**Authentication of the Dean**

<b>See the program</b> .١
<b>Seeking</b> Northern Technical University - Technical Management Institute - Nineveh - Department of Financial and Banking Technologies to prepare graduates in the field of finance and banking to work in government departments and governmental and private banks and to benefit from specialization in the practical and applied field.

<b>Program message</b> .٢
<b>The Department of Banking and Financial Technologies at the Institute of Management Technology aims to...-Nineveh to Providing the student with mathematical methods for banking operations and how to deal with financial activities in banks using a mathematical analysis method</b>

<b>Program Goals</b> .٣
<b>A1- Realizing and understanding financial mathematics in order to use financial analysis tools</b>
<b>2-Using mathematics in the financial analysis of financial assets.</b>

<b>Program accreditation</b> .٤
Muhammad Salama Rashid, Financial Mathematics 2007 -١
Alaa Al-Din Al-Khafaji and Amal Hussein Alwan, Authority of Technical Institutes, 2001 -٢
Introduction to Financial Mathematics_ Robert 2001.3

<b>Other external influences</b> .٥

<b>Program structure</b> .٦				
comments *	percentage	Study unit	Number of courses	Program structure
Basic course			Yes	<b>Enterprise requirements</b>
			Yes	<b>College requirements</b>
			Yes	<b>Department</b>

				<b>requirements</b>
			There is	<b>summer training</b>
				<b>Other</b>

\* Notes may include whether the course is core or elective.

<b>Program description</b>				
<b>Credit hours</b>		<b>Name of the course or course</b>	<b>Course or course code</b>	<b>Year/level</b>
	<b>Theoretical + practical</b>	<b>financial mathematics</b>	<b>FBT207</b>	<b>2023-2024/second</b>

**Expected learning outcomes of the programme**

**Knowledge**

	<p><b>Learn about the concept of financial mathematics</b></p> <p><b>The financial mathematics course aims to analyze financial assets using simple and compound interest mechanisms in analyzing financial assets such as stocks and bonds and estimating the returns resulting from them..</b></p> <p><b>Identify the mechanisms of commercial interest and the correct interest.</b></p> <p><b>Instant payments</b></p> <p><b>Settlement of short-term debts using simple and compound interest</b></p>
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<b>Skills</b>	
	<p>B1-Using advanced mathematical tools in analyzing financial statements.</p> <p>Enhance the ability to logically and analytically understand financial models</p>
<b>Value</b>	
	<p>C 1- Enhancing the ability to solve problems in the financial field. Financial mathematics helps develop the student's skills to confront these problems and find the most appropriate ways to solve them.</p> <p>C 2- Providing a comprehensive understanding of the working mechanisms of financial markets.</p> <p>A3- Providing a strong foundation for advanced financial specializations</p>

<b>Teaching and learning strategies</b> .9
<p>- 1- The Financial Mathematics course aims to introduce students to quantitative analysis tools using mathematical equations for financial phenomena and finding a logical analysis of them.</p> <p>2-It seeks to provide students with skills in the field of financial analysis to support the field of application in the labor market.</p> <p>3- It includes the articleSolution to mathematical problems in addition to various examples and study assignments.</p>

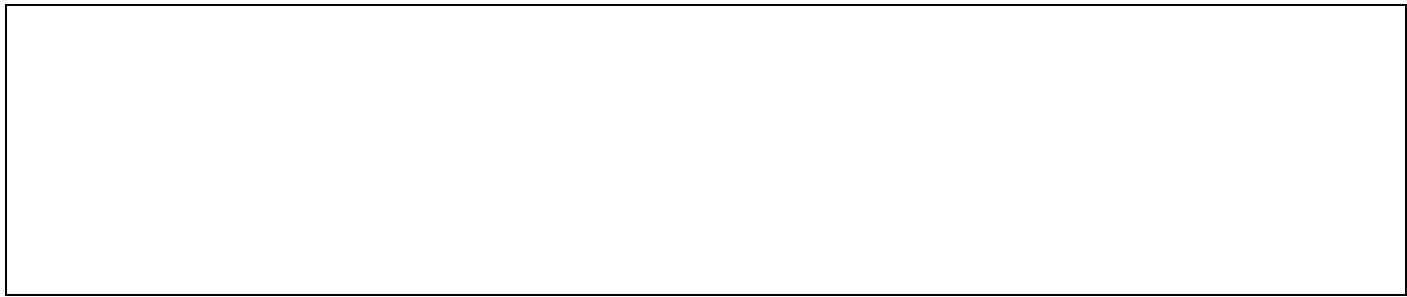
<b>Evaluation methods</b> .10
<b>Weekly, monthly and daily exams and the end of the course exam.</b>

<b>education institution</b> .١١						
Faculty members: - Zahraa Taha Naqi						
<b>Preparing the teaching staff</b>		<b>Special requirements/skills (if any)</b>		<b>Specialization</b>		<b>Scientific rank</b>
<b>lecturer</b>	<b>angel</b>			<b>private</b>	<b>general</b>	
	angel			Economic feasibility studies	Economy	assistant teacher

<b>Professional development</b>
<b>Orienting new faculty members</b>
Attending workshops and courses in various fields in order to acquire additional skills.
<b>Professional development for faculty members</b>
Attending workshops and courses in various fields in order to acquire additional skills.

<b>Acceptance standard</b> .١٢
the average. -١ the desire. -٢ Admission plan. -٣

<b>The most important sources of information about the program</b> .١٣
Muhammad Salama Rashid, Financial Mathematics 2007 -٣ Alaa Al-Din Al-Khafaji and Amal Hussein Alwan, Authority of Technical Institutes, 2001 -٤ Introduction to Financial Mathematics_ Robert 2001 -٥



Program development plan . ١ ٤

Updating scientific content - ١

Involving students in solving scientific problems and discussions. - ٢

Using realistic examples to ensure students' interaction in understanding methods of financial - ٣  
mathematics and quantitative analysis

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Please check the boxes corresponding to the individual learning outcomes from the program subject to evaluation •

Program skills chart															
Learning outcomes required from the programme												Essential or optional?	Course Name	Course Code	Year/level
Value				Skills				Knowledge							
C4	C3	C2	C1	B4	B3	B2	B 1	A4	A3	A2	A1				
✓	✓ —	✓	✓	✓	✓	✓ —	✓	✓	✓	✓	✓	Basic	financial mathematics	FBT207	2023-2024

Course description form

.1
Importance of Financial Mathematics
.2
Simple Interest
.3
Calculate the period between two dates (in days)
.4
Concept of Trade interest (Banking interest) and Exact interest
.5
Difference between Trade interest and Exact interest.
6.
Relationship between trade interest and Exact interest.
7.
Calculate the (trade interest) and (Exact interest) by using Numerical Method.
8.
Deposited & Draw
9.
Settlement of short time loan (by simple interest). -By periodical interest method. *-By Equally premium method.
10.
The Debit Discount (by simple interest).
11.
Banking nominal value of the deposit.
12.
Difference between the Banking Discount and True Discount.



true discount.

compound interest:-

the concept of compound interest.

difference between the simple interest and compound interest