

**MASTER OF SCIENCE  
IN  
APPLIED ECONOMICS**

(Applicable from the Academic Session 2023-24)

Draft Curriculum

**MAULANA ABUL KALAM AZAD  
UNIVERSITY OF TECHNOLOGY,  
WEST BENGAL**



**Maulana Abul Kalam Azad University of Technology  
West Bengal  
(Formerly West Bengal University of Technology)  
Haringhata-741249, Nadia, West Bengal, INDIA**

# **Maulana Abul Kalam Azad University of Technology**

## **M.Sc. in Applied Economics**

### **Curriculum Structure**

#### **Preamble**

Universities prepare students to be upright and productive citizens through their academic programs. One of the primary goals of higher education is moulding the social and cultural concerns of individuals, groups, and collectives with a profound feeling of rootedness in our own soil with a global outlook. In this context, the role of Economics is paramount. In 2019, AICTE decided to run humanities courses alongside technical courses. This decision is revolutionary because it takes a giant step towards humanizing the technical education that has erstwhile focused on hardcore scientific principles. The outcome-based syllabus at the postgraduate level has an agenda to structure the teaching-learning experiences in a more student-centric manner. The M.Sc. programme has been carefully designed to train the students in the major areas of Economics to make them conversant with the principles and ready to take on challenging societal roles. Appropriate levels of weightage have been given to both core subjects to strengthen their conceptualizations and the ability and skill-enhancing courses to prepare the students for industry. The postgraduate syllabus has been designed following the recommendations and guidelines of the University Grants Commission (UGC) according to the Semester Wise Choice Based Credit System (CBCS) scheme.

#### **Highlights of this programme**

The curriculum of M.Sc. in Applied Economics offers a rigorous basis for much of the advanced thinking in the Economics discipline. The emphasis will be on developing strong computational skills among students and understanding economic concepts and theories. A special focus will be given on the field of financial economics and analysis of the financial markets. The students will be equipped with statistical software that will help them to work with real-world data. Professional, communicative and creative skills will be developed among the students. The students will also be equipped with research tools and software (For example, Mendeley, LaTeX etc.) . Innovative and interactive teaching-learning software (like, Explorable Explanation) will be used for the learning and evaluation process. The program is balanced with comprehensive deliverable projects that will increase the scope of employability of the students. The students will be encouraged to attend internship programs to enhance their professional maturity during the program.

#### **Benchmark**

The syllabus of this program has been designed following the recommendation and guidelines of the University Grants Commission (UGC). During the design of the syllabus, we have referred to the syllabi of some National and International Institutions; the names of the institutes are placed here under

#### National Institutions:

1. University of Delhi
2. University of Calcutta
3. Jadavpur University
4. Presidency University
5. St. Xavier's University, Kolkata
6. St. Xavier's College (Autonomous), Kolkata
7. Madras School of Economics

#### International University

1. University of Bonn
2. University of Bath
3. Johns Hopkins University

### **PROGRAMME DETAILS**

- **Title of the Programme:** M.Sc. in Applied Economics
- **Duration:** Two (2) years full-time.
- **Intake:** 30 (Reservation policy as per the University Norms)
- **Eligibility:** Honours/Major or with a minimum of 140 credit points in Economics or Mathematics or Statistics or allied subject at undergraduate level or equivalent .
- **Admission Procedure:** As per the University norms.
- **Provision for Bridge Course:**
  - Students lacking mathematical background will be taken through the **bridge course** for **Mathematics** offered by the Department in the 1st Semester to bring them on par.
  - Students lacking basic knowledge of Economics will be taken through the **bridge course** for **Economics** offered by the Department in the 1st Semester to bring them on par. Different courses of SWAYAM and NPTEL will also be advised by the department for the students to develop basic conceptual knowledge in Economics.
- **Program Outcomes:** Upon completing this program, learners will be able to:
  - PO1:** Understand the concepts, scientific principles, and theories related to Economics.
  - PO2:** Utilize statistical and mathematical techniques using contemporary software tools for the purpose of solving real-life problems.
  - PO3:** Accessing, retrieving, analyzing, visualizing and interpreting data using software tools.
  - PO4:** Utilize research-based knowledge using mathematical and statistical methods.
  - PO5:** Apply economic, mathematical and statistical skills to the study of finance.
  - PO6:** Engage in collaborative engagements with colleagues from other fields of study.
  - PO7:** Work like a professional using communicative, creative, and entrepreneurship skills.
  - PO8:** Understand the real-world problems facing the country and the world in relation to economics and finance.

#### **Courses Type:**

1. **Core Course (CC):** A course, which should compulsorily be studied by a candidate as a

core requirement is termed as a Core course.

2. **Elective Course:** Generally, a course which can be chosen from a pool of courses and which may be very specific or specialized or advanced or supportive to the discipline/subject of study or which provides an extended scope or which enables an exposure to some other discipline/subject/domain or nurtures the candidate's proficiency/skill is called an Elective Course.

**Discipline-Specific Elective (DSE) Course:** Elective courses may be offered by the main discipline/subject of study is referred to as Discipline Specific Elective. The University/Institute may also offer discipline-related Elective courses of interdisciplinary nature (to be offered by the main discipline/subject of study).

3. **Skill Enhancement Courses (SEC):** These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.
4. **Value-Added Courses(VAC):** These courses are non-credit compulsory Audit Courses.

**Post-Graduate CBCS Semester-wise distribution of courses**

Subject Type	Semester I	Semester II	Semester III	Semester IV
<b>Core Courses (CC)</b>	CC1, CC2, CC3, CC4, CC5	CC6, CC7, CC8, CC9, CC10	CC11, CC12	CC13, CC14
<b>Discipline Special Elective (DSE)</b>			DSE1, DSE2, DSE3	DSE4, DSE5, DSE6
<b>Skill Enhancement Courses (SEC)</b>	SEC1	SEC2	SEC3	SEC4
<b>Value Added Courses (VAC)</b>	VAC 1	VAC 2	VAC 3	
<b>Credit Distribution</b>	7(22)	7(22)	7(24)	6(24)
<b>TOTAL CREDITS = 92</b>				

## CREDIT ALLOCATION AND MARKING SCHEME FOLLOWED BY THE UNIVERSITY

### • Credit Allocation Scheme followed by the University

- Theory and Tutorial= 1 contact hour per week= 1 credit
- Practical= 2 contact hours per week= 1 credit

### • Marking scheme followed by the University

- Theory= 100 (Internal Assessment 30+ End semester Assessment 70)
- Practical= 100 (Internal Assessment 40+ End semester Assessment 60)
- Sessional= 100 (End semester Assessment 100)

## SEMESTER-WISE CURRICULUM STRUCTURE

### SEMESTER 1

Sl No.	Course Code		Course Title	Course Type	Hours/Credit			
					L	T	P	C
1	MSCAE- 101	Theory	Microeconomics I	CC 1	4			4
2	MSCAE- 102	Theory	Macroeconomics I	CC 2	4			4
3	MSCAE- 103	Theory	Mathematical Methods I	CC 3	4			4
4	MSCAE- 104	Theory	Statistical Techniques	CC 4	4			4
5	MSCAE- 191	Practical	Statistical Analysis using Computer Software	CC 5			8	4
6	MSCAE- 181	Sessional	Computer Programming using Python	SEC 1			4	2
7	MSCAE- 105	Audit Course	History and Evolution of Economic Thought	VAC1	2			0
<b>Total Credit</b>					<b>22</b>			

## SEMESTER 2

Sl No.	Course Code		Course Title	Course Type	Hours/Credit			
					L	T	P	C
1	MSCAE- 201	Theory	Microeconomics II	CC 6	4			4
2	MSCAE- 202	Theory	Macroeconomics II	CC 7	4			4
3	MSCAE- 203	Theory	Mathematical Methods II	CC 8	4			4
4	MSCAE- 204	Theory	Econometrics	CC 9	4			4
5	MSCAE- 291	Practical	Computer-aided Econometric Applications	CC 10			8	4
6	MSCAE- 281	Sessional	Machine Learning and Data Science Fundamentals	SEC 2			4	2
7	MSCAE- 205	Audit Course	English Communication Skills	VAC 2	2			0
<b>Total Credit</b>					<b>22</b>			

## SEMESTER 3

### (Specialization: Financial Economics)

Sl No.	Course Code		Course Title	Course Type	Hours/Credit			
					L	T	P	C
1	MSCAE- 301	Theory	International Economics	CC 11	4			4
2	MSCAE- 302	Theory	Game Theory	CC 12	4			4
3	MSCAE- 303	Theory	Advanced Econometrics	DSE 1	4			4
4	MSCAE- 304	Theory	Money, Financial Market and Institutions	DSE 2	4			4
5	MSCAE- 305	Theory	Financial Economics	DSE 3	4			4
6	MSCAE- 381	Sessional	Project I	SEC 3	4			4
7	MSCAE- 306	Audit Course	Research Methodology	VAC 3	2			0
<b>Total Credit</b>					<b>24</b>			

**SEMESTER 4**  
**(Specialization: Financial Economics)**

Sl No.	Course Code		Course Title	Course Type	Hours/Credit			
					L	T	P	C
1	MSCAE- 401	Theory	Development Economics	CC 13	4			4
2	MSCAE- 402	Theory	Public Economics	CC 14	4			4
3	MSCAE- 491	Practical	Computer- aided Advanced Econometrics	DSE 4			8	4
4	MSCAE- 403	Theory	International Finance	DSE 5	4			4
5	MSCAE- 404	Theory	Financial Derivatives and Corporate Finance	DSE 6	4			4
6	MSCAE- 481	Sessional	Project II	SEC 4	4			4
<b>Total Credit</b>					<b>24</b>			