## Ming Chuan University Department of Applied Statistics and Information Science Course Outline for all students entering in 2024 Page 1 of 6

					1st y	year			2nd	year	year		3rd	year		4th year			
	Course	Credits	Hours	Fa	all	Spr	ring	F	all	Spring		Fall		Spi	ing	F	all	Spi	ring
				class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab
	Chinese Literature :																		
	Appreciation and Creative Writing	4	4	2		2													
	Practical English 1-2	0	4	1	1	1	1												
	Practical English 3-4	0	4					1	1	1	1								
	English for Business Communication 1	2	3									2	1						
	English for Business Communication 2	2	3											2	1				
Core Required Courses	Practical English for Professionals 1	2	3													2	1		
	Practical English for Professionals 2	2	3															2	1
	Introduction to Artificial Intelligence	2	3	2	1														
	Programming Design	2	3			2	1												
	General Education	12	12																
	Physical Education(I)-(IV)	0	8	2		2		2		2		2		2					
	Subtotal	28	54																
	Data Science	3	3	3															
	Programming Language	3	5			3	2												
College Required Courses	Introduction to Finance and Financial Ethics	2	2			2													
	Introduction to Financial Technology	2	2					2											
	Subtotal	10	12																

## Ming Chuan University Department of Applied Statistics and Information Science Course Outline for all students entering in 2024 Page 2 of 6

						1st	year			2nd	year			3rd	year			4th y	year	
		Course	Credits	Hours	F	all	Spi	ring	Fa	all	Sp	ring	F	all	Spr	ing	Fa	all	Spi	ring
					class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab
		Statistics(I   II)	6	8	3	1	3	1												
		Calculus(I \ II)	6	8	3	1	3	1												
		Economics	3	4	3	1														
		Accounting	3	4					3	1										
		Sampling Methods	3	3					3											
		Linear Algebra	3	4					3	1										
		Advanced Programming	3	5					3	2										
		Statistical Databases	3	3							3									
Profes	sional	Applied Regression Analysis	3	3							3									
Requir Course		Applied Categorical Data Analysis	3	3									3							
		Experimental Desing	3	3									3							
		Applied Categorical Data Analysis	3	3											3					
		Data Mining	3	3											3					
		Special Topics in Statistical Information	4	4											2		2			
		FinTech Workshop(I 、 II )	4	4									2		2					
		Subtotal	53	81																
	sd	Seatistical Software Package	3	4									3	1						
sory	Applied Statistics	Application of Statistical Methods	3	4									3	1						
Indm		Subtotal	6																	
Group compulsory	ata ment	Application and Design of Web-based Database System	3	3									3							
Group Big data managemer		Exploratory data analysis and visualization	3	3											3					
	m	Subtotal	6																	
	culty pulsory	Subtotal	59																	

## Ming Chuan University Department of Applied Statistics and Information Science Course Outline for all students entering in 2024 Page 3 of 6

				18	st year			2n	id year	r		3rc	d year			4th	n year		
	Course	Credits	Hours	Fa	Fall		ing	Fa			ring	Fa			ring	Fa			ring
				class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab
	Marketing Surrey	3	3					3											
	Marketing	3	3							3									
	Marketing Management	3	3													3			
	Digital Marketing Practice	3	3															3	
	E-commence Website Traffic Analysis	3	3							3									
	Biometric method	3	3											3					
es	Epidemiological	3	3											3					
Courses	Health data analysis	3	3											3					
e C	Statistical Analysis in Clinical Data	3	3															3	
ctiv(	Actuarial Mathematics (I 、 II)	6	6									3		3					
Ele	Theory of Interest	3	3					3											
nal	Financial data analysis and program	3	3									3							
<b>Professional Elective</b>	Financial Information System	3	3									3							
ofe:	Quality Control (I   II)	6	6					3		3									
$\mathbf{P}_{\mathbf{f}}$	Reliability Analysis	3	3									3							
	Linear Programming	3	3									3							
	Operations Research	3	3											3					
	Quality Engineering	3	3											3					
	Dynamic Homepage programming	3	3							3									
	Data simulation analysis	3	3											3					
	Design of Data Dynamic Dashboard	3	3											3					
	Data Analysis Practice	3	3											3					

## Ming Chuan University Department of Applied Statistics and Information Science Course Outline for all students entering in 2024 Page 4 of 6

			1s	t year			2n	d yea	r		3r	d year			4th year			
Course	Credits	Hours	F	all	Spri	ng	Fa	11	Spi	ring	Fa	ll	Spr	ing	Fa	.11	Sp	ring
			class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab	class	lab
Nonparametric Statistics	3	3							3									
Application probability theory	3	3							3									
Statistical applied mathematics	3	3							3									
Workplace English	3	3									3							
Danger theory	3	3									3							
Applied simulation method	3	3											3					
Visual Image in Practice	3	3											3					
Time Series Analysis	3	3													3			
Spatial statistics	3	3													3			
Curricular Practical Training	3	3													3			
Advanced chatbot implementation	3	3													3			
Machine Learning Practice	3	3													3			
Application decision method	3	3															3	
Social media marketing	1	1							1									
Marketing data analysis	1	1							1									
E-commerce market environment analysis	1	1							1									
E-commerce logistics and payment	1	1							1									
AI prediction model	1	1									1							
Questionnaire structure model	1	1									1							

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Ming Chuan University Depa		Applied	1	st year	morma			d year				d year	U	11 202-	U	h year		
Course	Credits	Hours		all	Spri	ng	Fa		Spr	ing	Fa		Spr	ing		all	Spi	ring
			class		class	lab	class	lab	class	lab	class	lab	class		class	lab	class	lab
Basic math	3	3					3											
Introduction to Mathematic	3	3					3											
History of mathematics	3	3					3											
Data analysis	3	3							3									
Advanced Calculus (I&II)	8	8					4		4									
Higher Linear Algebra	3	3									3							
Geometry (I& II)	6	6									3		3					
Algebra (I& II)	6	6									3		3					
Topology	3	3									3							
Microeconomics	3	3					3											
Macroeconomics	3	3							3									
Business Management	3	3					3											
Financial Management	3	3													3			
Investment	3	3															3	
E-commerce Operations	3	4							3	1								
E-Marketing	3	4							3	1								
Analysis and Investment of	3										3							
Individual Industries																		
Analyzing Current Economic	3										3							
Events and Financial Investment																		
Analyzing Current Economic	3										3							
Events																		
Investment Analysis	3												3					
Financial Product and Practice	3												3					
Seminar on Financial																		
Technology																		
Financial Statement Analysis	3	3											3					
The Predictability of Interest rate	3	3											3					
and Exchange rate																		
Futures and options	3	3													3			
Financial Instruments and	3	3													3			
Investment																		

	Ming Chuan University Dep	artment of Applied Statistics and Information Science Course Outline for all students entering in 2024 Page 6 of 6
Total	Subtotal Required Course Credits	97
Total	Elective Course Credits	31
	Grand Total	128

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- 1. In accordance with MCU General Provisions for Study, all undergraduate students must pass the requirements for Service-Learning, English Proficiency, Information Technology Proficiency, Chinese Proficiency, Sports Ability, and Basic Professional Skills in order to graduate.
- Students are required to take at least 12 credit hours of General Education courses. There are three disciplines within General Education

   Humanities, Social Science and Natural Science. The courses are categorized into "Core Courses" and "Extended Courses" under each discipline. To meet the graduation requirements, students are required to take at least one 2-credit-hour course in each category of each of the disciplines.
- 3. Credits for education and general education are not included in the credits.
- 4. The credits of interdisciplinary focused course program are not included in course structure diagram that can be regarded as the other department credits.
- 5. Group compulsory censorship can be recognized as another group of professional elective credits.
- 6. Elective courses in this mandatory elective list can be traced back to students enrolled before the 110 academic year.