











## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	PHP		
<b>Course Code</b>	MCA-106[P]		
<b>Course Outcomes &amp; Bloom's Level</b>	<p><b>CO1-</b> To remember various syntax rules of any of programming language such as c/C++ <b>(BL1-Remember)</b></p> <p><b>CO2-</b> To understand Object Oriented concepts of PHP and various web development concepts including design a web, Execution of web pages on server and request handling and response. Generation. <b>(BL2-Understand)</b></p> <p><b>CO3-</b> To implement Html, PHP and java script for Programming and mysql for database connectivity and file system. <b>(BL3-Apply)</b></p> <p><b>CO4-</b> To analyze various Database error Handling techniques to learn how to improve the performance of the PHP application. <b>(BL4-Analyze)</b></p> <p><b>CO5-</b> To evaluate and compare various web application Development techniques using PHP concepts. <b>(BL5-Evaluate)</b></p> <p><b>CO6-</b> To develop solutions for real world problems using php and mysql programming. <b>(BL6-Create)</b></p>		
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education)

### Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	1	1	-	-	-	-	-	-	-	-	-	1	2	3
CO2	1	3	-	1	-	-	-	-	-	-	-	-	2	1	2
CO3	-	-	2	1	-	-	-	-	-	-	-	-	3	2	1
CO4	1	2	-	2	-	-	-	-	-	-	-	-	2	2	1
CO5	-	2	1	1	-	-	-	-	-	-	-	-	2	1	1
CO6	-	2	-	-	-	-	-	-	-	-	-	-	3	1	1





















## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Big Data		
<b>Course Code</b>	MCA 205- C(T)		
<b>Course Outcomes &amp; Bloom's Level</b>	<b>CO1-</b> CO1: To understand the fundamentals of Big Data.( <b>BL2-Understand</b> ) <b>CO2-</b> CO2: To know about the different tools for Big Data and Visualization.( <b>BL2-Understand</b> ) <b>CO3-</b> CO3: To explore tools and practices for big data and Visualization. ( <b>BL3-Apply</b> ) <b>CO4-</b> CO4: To recognize the role of business intelligence and visualization in decision making.( <b>BL4-Analyze</b> ) <b>CO5-</b> CO5: To analyze data using Power BI, Tableau etc.( <b>BL5-Evaluate</b> ) <b>CO6-</b> CO6: To prepare design dashboard for presenting analytics from data. ( <b>BL6-Create</b> )		
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>	SDG1(No poverty) SDG4(Quality education)

#### Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	2	-	2	-	-	2	-	-	1	-	-
CO2	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-
CO3	2	-	-	-	1	-	-	-	-	-	-	-	1	-	-
CO4	2	1	-	2	-	-	-	-	-	-	-	-	1	2	-
CO5	2	2	-	-	-	-	-	-	-	-	-	-	2	3	-
CO6	1	-	1	-	-	-	-	-	-	-	-	-	2	2	-











## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Data Warehousing and Mining		
<b>Course Code</b>	MCA301 (P)		
<b>Course Outcomes &amp; Bloom's Level</b>	<p><b>CO1-</b> To remember the techniques of Data mining which help to extract the meaningful data.(<b>BL1-Remember</b>)</p> <p><b>CO2-</b> To understand the basics of Data warehouse, Data marts, data Preprocessing and techniques of data mining.(<b>BL2-Understand</b>)</p> <p><b>CO3-</b> To implement the various methods of data mining for data clustering, classification: K-means, K- Medoids etc.(<b>BL3-Apply</b>)</p> <p><b>CO4-</b> To analyze the concepts of data Preprocessing, Association Rule Mining, classification, clustering.(<b>BL4-Analyze</b>)</p> <p><b>CO5-</b> To evaluate the data mining models that run efficiently.(<b>BL5-Evaluate</b>)</p> <p><b>CO6-</b> To create the dominant data mining algorithms; demonstrate an appreciation of the importance of paradigms from the fields of Artificial Intelligence and Machine Learning to data mining; explore the developing areas - web mining, text mining etc(<b>BL6-Create</b>)</p>		
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✗ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education) SDG8(Decent work and economic growth)

#### Course Articulation Matrix

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	1	-	-	-	2	2	-	-	-	2	-	-	1	1	-
CO2	-	1	1	2	2	2	-	-	-	2	-	-	1	-	3
CO3	2	-	-	-	-	-	-	-	-	-	-	-	3	2	3
CO4	2	1	-	2	1	-	-	-	-	-	-	-	2	3	3
CO5	2	2	-	2	1	-	-	-	-	-	-	-	-	1	1
CO6	2	2	-	-	-	-	-	-	-	-	-	-	1	-	1

## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Data Analytics	
<b>Course Code</b>	MCA 305(A) (T)	
<b>Course Outcomes &amp; Bloom's Level</b>	<b>CO1-</b> To understand the fundamentals of Big Data.( <b>BL1-Remember</b> ) <b>CO2-</b> To know about the different tools for Big Data and Visualization.( <b>BL2-Understand</b> ) <b>CO3-</b> To explore tools and practices for big data and Visualization.( <b>BL3-Apply</b> ) <b>CO4-</b> To recognize the role of business intelligence and visualization in decision making.( <b>BL4-Analyze</b> ) <b>CO5-</b> To analyze data using Power BI, Tableau etc.( <b>BL5-Evaluate</b> ) <b>CO6-</b> To prepare design dashboard for presenting analytics from data.( <b>BL6-Create</b> )	
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>

#### Course Articulation Matrix

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO1	1	-	-	-	-	1	1	1	-	-	-	-	-	-	-
CO2	-	-	1	1	1	1	-	-	-	1	1	1	-	-	-
CO3	-	-	1	-	1	-	1	-	1	1	1	-	-	-	-
CO4	1	1	1	1	1	1	-	-	-	-	-	1	-	1	-
CO5	-	-	-	-	1	1	1	1	-	1	-	1	-	1	-
CO6	1	-	-	-	1	-	1	-	1	-	1	1	-	1	-

## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Data Analytics	
<b>Course Code</b>	MCA305 (P)	
<b>Course Outcomes &amp; Bloom's Level</b>	<b>CO1-</b> To understand the fundamentals of Big Data.( <b>BL1-Remember</b> ) <b>CO2-</b> To know about the different tools for Big Data and Visualization.( <b>BL2-Understand</b> ) <b>CO3-</b> To explore tools and practices for big data and Visualization.( <b>BL3-Apply</b> ) <b>CO4-</b> To recognize the role of business intelligence and visualization in decision making.( <b>BL4-Analyze</b> ) <b>CO5-</b> To analyze data using Power BI, Tableau etc.( <b>BL5-Evaluate</b> ) <b>CO6-</b> To prepare design dashboard for presenting analytics from data.( <b>BL6-Create</b> )	
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>

#### Course Articulation Matrix

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO1	1	-	-	-	-	1	1	1	-	-	-	-	-	-	-
CO2	-	-	1	1	1	1	-	-	-	1	1	1	-	-	-
CO3	-	-	1	-	1	-	1	-	1	1	1	-	-	-	-
CO4	1	1	1	1	1	1	-	-	-	-	-	1	-	1	-
CO5	-	-	-	-	1	1	1	1	-	1	-	1	-	1	-
CO6	1	-	-	-	1	-	1	-	1	-	1	1	-	1	-







## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Machine Learning		
<b>Course Code</b>	MCA304A(T)		
<b>Course Outcomes &amp; Bloom's Level</b>	<p><b>CO1-</b> To understand Basic concept of machine learning, various machine learning models(<b>BL1-Remember</b>)</p> <p><b>CO2-</b> To understand various Performance evaluation techniques of Machine Learning models. (<b>BL2-Understand</b>)</p> <p><b>CO3-</b> To implement various supervised, unsupervised and reinforcement machine Learning Models (<b>BL3-Apply</b>)</p> <p><b>CO4-</b> To train &amp; test various machine Learning models using different domains of dataset. (<b>BL4-Analyze</b>)</p> <p><b>CO5-</b> To evaluate and summarize the performance of various machine learning models using statistical &amp; visualization tools(<b>BL5-Evaluate</b>)</p> <p><b>CO6-</b> To create machine learning models to solve real world problems.(<b>BL6-Create</b>)</p>		
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>	SDG1(No poverty) SDG2(Zero hunger) SDG4(Quality education) SDG8(Decent work and economic growth)

#### Course Articulation Matrix

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO1	1	-	-	-	2	2	-	-	-	2	-	-	1	-	1
CO2	1	2	1	2	2	2	-	-	-	2	-	-	1	-	3
CO3	2	1	1	-	1	-	-	-	-	-	-	-	3	2	3
CO4	2	2	-	2	1	-	-	-	-	-	-	-	2	3	3
CO5	2	2	-	2	1	-	-	-	-	-	-	-	2	2	3
CO6	2	1	1	2	2	-	-	-	-	2	-	-	2	2	3

## SOET-MCA

### Course mapping with relevance to the local, regional, national, and global developmental needs

<b>Title of the Course</b>	Block Chain		
<b>Course Code</b>	MCA 304 -C (T)		
<b>Course Outcomes &amp; Bloom's Level</b>	<p><b>CO1-</b> To remember Cryptography Techniques, Data Structures and Algorithms(<b>BL1-Remember</b>)</p> <p><b>CO2-</b> To understand the concept and working of blockchain technology, various application areas like cryptocurrency, digital ledger etc. And role of cryptography in blockchain.(<b>BL2-Understand</b>)</p> <p><b>CO3-</b> To implement the cryptography and mining to implement blockchain ledger and to implement security.(<b>BL3-Apply</b>)</p> <p><b>CO4-</b> To analyze the role of miner sin blockchain. Application of blockchain in multiple areasandhowitprovidessuchaneffectivesecuremechanismofhandlingandmaintainingdataorrecords(<b>BL4-Analyze</b>)</p> <p><b>CO5-</b> To evaluate the performance characteristics of blockchain in comparisontoavailabletechnologiesandwhatfeaturesofblockchainmakeitsoeffective.(<b>BL5-Evaluate</b>)</p> <p><b>CO6-</b> To prepare a scenario to observe the performance evaluation of blockchain in comparison to contemporary technologies and to observe the potential application areas(<b>BL6-Create</b>)</p>		
<b>Course Elements</b>	Skill Development ✓ Entrepreneurship ✗ Employability ✓ Professional Ethics ✗ Gender ✗ Human Values ✗ Environment ✗	<b>SDG (Goals)</b>	SDG1(No poverty) SDG2(Zero hunger) SDG3(Good health and well-being) SDG4(Quality education)

#### Course Articulation Matrix

<b>COs</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>
CO1	-	2	2	1	-	2	-	-	-	-	-	-	2	1	3
CO2	-	1	2	1	1	-	-	-	-	-	-	-	1	2	-
CO3	-	1	2	1	1	2	-	-	-	-	-	-	1	2	1
CO4	-	-	1	-	-	1	-	-	-	-	-	-	2	1	1
CO5	-	2	2	-	1	2	-	-	-	-	-	-	1	2	3
CO6	-	2	1	-	1	-	-	-	-	-	-	-	1	2	-





