

**Center for Data Science**  
**Syllabus for 2 Year M.Tech in Data Science and Engineering**

<b>First Semester</b>					
<b>Theory</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
PGDSE101	Probability and Statistics	3	0	0	3
PGDSE102	Programming Languages (Python, R and Java)	2	0	0	2
PGDSE103	Pattern Recognition and Machine Learning	3	0	0	3
PGDSE104	Mobile Computing and IOT	3	0	0	3
PGDSE105	Database Management System	3	0	0	3
PGDSE106	Image Processing	3	0	0	3
<b>Laboratory</b>					
PGDSE191	DBMS Lab (MySQL)	0	0	3	2
PGDSE192	Programming Lab (Python, R and Java)	0	0	6	4
PGDSE193	Machine Learning Lab	0	0	3	2
PGDSE194	Mobile and Cloud Computing Lab	0	0	3	2
<b>Total</b>		<b>17</b>	<b>0</b>	<b>15</b>	<b>27</b>

<b>Second Semester</b>					
<b>Theory</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
PGDSE201	Big Data Analytics	3	0	0	3
PGDSE202	Advanced Machine Learning	3	0	0	3
PGDSE203	Image and Video Analytics	3	0	0	3
PGDSE204	Elective 1	3	0	0	3
PGDSE205	Elective 2	3	0	0	3
<b>Laboratory</b>					
PGDSE291	Big Data Analytics Lab	0	0	3	2
PGDSE292	IOT Lab	0	0	3	2
PGDSE293	Advanced Machine Learning Lab	0	0	3	2
PGDSE294	Seminar - Term Paper Leading to Project				2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>9</b>	<b>23</b>

<b>Third Semester</b>					
<b>Course Code</b>	<b>Course Name</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credit</b>
PGDSE391	Industrial Project				8
PGDSE392	Thesis Part I				12
<b>Total</b>					<b>20</b>

### Fourth Semester

Course Code	Course Name	L	T	P	Credit
PGDSE491	Thesis Part II				20
PGDSE492	Comprehensive Viva Voice				4
<b>Total</b>					<b>24</b>