

**MADRAS CHRISTIAN COLLEGE (AUTONOMOUS)**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**CURRICULUM FOR MCA 2017 ONWARDS**

	<b>Title of Paper</b>	<b>Hrs / DO cycle</b>	<b>Credits</b>	<b>ICA Marks</b>	<b>ESE Marks</b>	<b>Total Marks</b>
<b>Semester I</b>						
<b>11</b>	Discrete Mathematics	5	4	50	50	100
<b>12</b>	Problem Solving Using C	5	4	50	50	100
<b>13</b>	Software Engineering	5	4	50	50	100
<b>14</b>	Data Structures and Algorithms	5	4	50	50	100
<b>15</b>	Data Structures and Algorithms Laboratory	6	4	50	50	100
<b>16</b>	Programming Laboratory in Linux and C	6	4	50	50	100
	Total	32	24	300	300	600
<b>Semester II</b>						
<b>21</b>	Computer Networks	5	4	50	50	100
<b>22</b>	Principles of Operating Systems	5	4	50	50	100
<b>23</b>	Object-Oriented Programming	5	4	50	50	100
<b>24</b>	Principles of Database Management Systems	5	4	50	50	100
<b>25</b>	RDBMS Laboratory	6	4	50	50	100
<b>26</b>	Programming Laboratory in Java	6	4	50	50	100
	Soft Skill Programme	2	4	50	NA	50
	Total	34	28	350	300	650

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<b>Semester III</b>						
<b>31</b>	Object-Oriented System Design	5	4	50	50	100
<b>32</b>	Web Programming	5	4	50	50	100
<b>33</b>	Elective I	5	4	50	50	100
<b>34</b>	Elective II	5	4	50	50	100
<b>35</b>	Web Programming Laboratory	6	4	50	50	100
<b>36</b>	Advanced Java Programming Laboratory	6	4	50	50	100
	Soft Skill Programme	2	4	50	NA	50
	Total	34	28	350	300	650
<b>Semester IV</b>						
<b>41</b>	Software Project Management and Testing	5	4	50	50	100
<b>42</b>	Mobile Application Development	5	4	50	50	100
<b>43</b>	Elective III	5	4	50	50	100
<b>44</b>	Elective IV	5	4	50	50	100
<b>45</b>	Mobile Application Development Laboratory	6	4	50	50	100
<b>46</b>	Programming Laboratory in C# and .NET	6	4	50	50	100
	Total	32	24	300	300	600

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<b>Semester V</b>						
<b>51</b>	Big Data Analytics	5	4	50	50	100
<b>52</b>	Elective V	5	4	50	50	100
<b>53</b>	Elective VI	5	4	50	50	100
<b>54</b>	Elective VII	5	4	50	50	100
<b>55</b>	Free and Open Source Software Laboratory	6	4	50	50	100
<b>56</b>	Software Development Laboratory	6	4	50	50	100
	<b>Total</b>	32	24	300	300	600
<b>Semester VI</b>						
<b>61</b>	Project *(Outside or in College; Minimum of 2 hours of interaction between a student and a staff per cycle. No. of staff : 6)	2 / 12	15	50	50	100
	Internship	-	2	-	-	-
	<b>Total</b>		<b>145</b>	1650	1550	3200

## ELECTIVES

<b>E1</b>	Advanced Java Programming
<b>E2</b>	C# and .NET Technology
<b>E3</b>	Cloud Computing
<b>E4</b>	Computer Graphics and Multimedia
<b>E5</b>	Content Management Systems
<b>E6</b>	Cryptography and Network Security
<b>E7</b>	Data Mining and Big Data Analytics
<b>E8</b>	Data Warehousing and Mining
<b>E9</b>	Digital Image Processing
<b>E10</b>	Distributed Computing
<b>E11</b>	Embedded Systems
<b>E12</b>	Enterprise Resource Planning
<b>E13</b>	Free and Open Source Software
<b>E14</b>	Game Programming
<b>E15</b>	Grid Computing
<b>E16</b>	Healthcare Management
<b>E17</b>	Information Security
<b>E18</b>	Internet of Things
<b>E19</b>	Machine Learning
<b>E20</b>	Microprocessor Systems and Applications
<b>E21</b>	Mobile Commerce Technology
<b>E22</b>	Mobile Computing
<b>E23</b>	Natural Language Processing
<b>E24</b>	Semantic Web
<b>E25</b>	Soft Computing
<b>E26</b>	Statistics for Computer Science
<b>E27</b>	System Software
<b>E28</b>	XML and Web Services
<b>E29</b>	Directed Study