

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

**Repository of Digital Online Courses**

Sl No.	Course Name	URL	Institution	Credit Point
1	Introduction to Python: Absolute Beginner	<a href="https://www.edx.org/course/introduction-to-python-absolute-beginner">https://www.edx.org/course/introduction-to-python-absolute-beginner</a>	Microsoft	1
2	Introduction to Python: Fundamentals	<a href="https://www.edx.org/course/introduction-to-python-fundamentals">https://www.edx.org/course/introduction-to-python-fundamentals</a>	Microsoft	1
3	Introduction to Python for Data Science	<a href="https://www.edx.org/course/introduction-to-python-for-data-science">https://www.edx.org/course/introduction-to-python-for-data-science</a>	Microsoft	2
4	Introduction to Computing using Python	<a href="https://www.edx.org/course/introduction-computing-using-python-gtx-cs1301x">https://www.edx.org/course/introduction-computing-using-python-gtx-cs1301x</a>	GTx (Georgia Institute of Technology)	4
5	CS For All: Introduction to Computer Science and Python Programming	<a href="https://www.edx.org/course/cs-all-introduction-computer-science-harveymuddx-cs005x-0">https://www.edx.org/course/cs-all-introduction-computer-science-harveymuddx-cs005x-0</a>	HarveyMuddX (Harvey Mudd College)	3
6	Introduction to Programming Using Python	<a href="https://www.edx.org/course/introduction-to-programming-using-python">https://www.edx.org/course/introduction-to-programming-using-python</a>	UTAringtonX (University of Texas at Arlington)	4
7	Introduction to Artificial Intelligence (AI)	<a href="https://www.edx.org/course/introduction-to-artificial-intelligence-ai">https://www.edx.org/course/introduction-to-artificial-intelligence-ai</a>	Microsoft	1
8	Essential Mathematics for Artificial Intelligence	<a href="https://www.edx.org/course/essential-mathematics-for-artificial-intelligence">https://www.edx.org/course/essential-mathematics-for-artificial-intelligence</a>	Microsoft	2
9	Knowledge Management and Big Data in Business	<a href="https://www.edx.org/course/knowledge-management-and-big-data-in-business">https://www.edx.org/course/knowledge-management-and-big-data-in-business</a>	HKPolyUx (Hong Kong Polytechnic University)	2
10	Machine Learning for Data Science and Analytics	<a href="https://www.edx.org/course/machine-learning-for-data-science-and-analytics">https://www.edx.org/course/machine-learning-for-data-science-and-analytics</a>	ColumbiaX (Columbia)	1

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

			University)	
<b>11</b>	Data Science: R Basics	<a href="https://www.edx.org/course/data-science-r-basics">https://www.edx.org/course/data-science-r-basics</a>	HarvardX  (Harvard University)	<b>1</b>
<b>12</b>	Supply Chain Management: A Decision-Making Framework	<a href="https://www.edx.org/course/supply-chain-management-a-decision-making-framework">https://www.edx.org/course/supply-chain-management-a-decision-making-framework</a>	LouvainX  (Université catholique de Louvain (UCL))	<b>1</b>
<b>13</b>	Customer Relationship Management	<a href="https://www.edx.org/course/customer-relationship-management">https://www.edx.org/course/customer-relationship-management</a>	IIMBx  (Indian Institute of Management Bangalore)	<b>1</b>
<b>14</b>	Online Marketing Strategies	<a href="https://www.edx.org/course/online-marketing-strategies-curtinx-mkt5x">https://www.edx.org/course/online-marketing-strategies-curtinx-mkt5x</a>	CurtinX  (Curtin University)	<b>3</b>
<b>15</b>	E-Commerce	<a href="https://www.emarketinginstitute.org/free-courses/">https://www.emarketinginstitute.org/free-courses/</a>	eMarketing Institute	<b>1</b>
<b>16</b>	Email Marketing	<a href="https://www.emarketinginstitute.org/free-courses/">https://www.emarketinginstitute.org/free-courses/</a>	eMarketing Institute	<b>1</b>
<b>17</b>	Online marketing	<a href="https://www.emarketinginstitute.org/free-courses/">https://www.emarketinginstitute.org/free-courses/</a>	eMarketing Institute	<b>1</b>
<b>18</b>	Beginner PHP and MySQL Tutorial	<a href="https://www.udemy.com/php-mysql-tutorial/">https://www.udemy.com/php-mysql-tutorial/</a>	<a href="https://www.udemy.com">https://www.udemy.com</a>	<b>2</b>
<b>19</b>	Learn E-Commerce Website in PHP & MySQL From Scratch!	<a href="https://www.udemy.com/e-commerce-website-in-php-mysql/">https://www.udemy.com/e-commerce-website-in-php-mysql/</a>	<a href="https://www.udemy.com">https://www.udemy.com</a>	<b>2</b>
<b>20</b>	IT Fundamentals for Business Professionals: Software development	<a href="https://www.edx.org/course/it-fundamentals-business-professionals-upvalenciawisc101-3x">https://www.edx.org/course/it-fundamentals-business-professionals-upvalenciawisc101-3x</a>	La Universidad Politécnica de Valencia	<b>1</b>

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

<b>21</b>	Introduction to Java Programming – Part 1	<a href="https://www.edx.org/course/introduction-java-programming-part-1-hkustx-comp102-1x-5">https://www.edx.org/course/introduction-java-programming-part-1-hkustx-comp102-1x-5</a>	Hong Kong University of Science and Technology	<b>2</b>
<b>22</b>	Software Engineering Essentials	<a href="https://www.edx.org/course/software-engineering-essentials">https://www.edx.org/course/software-engineering-essentials</a>	Technische Universität München	<b>4</b>
<b>23</b>	Introduction to Java Programming – Part 2	<a href="https://www.edx.org/course/introduction-java-programming-part-2-hkustx-comp102-2x-7">https://www.edx.org/course/introduction-java-programming-part-2-hkustx-comp102-2x-7</a>	Hong Kong University of Science and Technology	<b>2</b>
<b>24</b>	Introduction to Mobile Application Development using Android	<a href="https://www.edx.org/course/introduction-mobile-application-hkustx-comp107x-6">https://www.edx.org/course/introduction-mobile-application-hkustx-comp107x-6</a>	Hong Kong University of Science and Technology	<b>3</b>
<b>25</b>	Introduction to the Internet of Things (IoT)	<a href="https://www.edx.org/course/introduction-to-the-internet-of-things-iot">https://www.edx.org/course/introduction-to-the-internet-of-things-iot</a>	Curtin University	<b>2</b>
<b>26</b>	Cyber Security Basics: A Hands-on Approach	<a href="https://www.edx.org/course/cyber-security-basics-a-hands-on-approach">https://www.edx.org/course/cyber-security-basics-a-hands-on-approach</a>	Universidad Carlos III de Madrid	<b>4</b>
<b>27</b>	Algorithms and Data Structures	<a href="https://www.edx.org/course/algorithms-and-data-structures">https://www.edx.org/course/algorithms-and-data-structures</a>	Microsoft	<b>2</b>
<b>28</b>	Introduction to Python: Absolute Beginner	<a href="https://www.edx.org/course/introduction-to-python-absolute-beginner">https://www.edx.org/course/introduction-to-python-absolute-beginner</a>	Microsoft	<b>2</b>
<b>29</b>	Foundation of Data Structures	<a href="https://www.edx.org/course/foundations-of-data-structures">https://www.edx.org/course/foundations-of-data-structures</a>	IIT Bombay	<b>4</b>
<b>30</b>	English Composition	<a href="https://www.edx.org/course/english-composition-asux-eng101x-6">https://www.edx.org/course/english-composition-asux-eng101x-6</a>	Arizona State University	<b>5</b>
<b>31</b>	Take Your English Communication Skills to the Next Level	<a href="https://www.coursera.org/specializations/improve-english">https://www.coursera.org/specializations/improve-english</a>	Georgia Institute of Technology	<b>1</b>
<b>32</b>	Conversational English Skills	<a href="https://www.edx.org/course/sheng-huo-ying-yu-ting-shuo-tsinghuax-30640014x">https://www.edx.org/course/sheng-huo-ying-yu-ting-shuo-tsinghuax-30640014x</a>	Tsinghua University	<b>3</b>

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

<b>33</b>	Java Programming: Solving Problems with Software	<a href="https://www.coursera.org/learn/java-programming">https://www.coursera.org/learn/java-programming</a>	Duke University	<b>2</b>
<b>34</b>	Developing Soft Skills and Personality	NPTEL		<b>3</b>
<b>35</b>	Soft Skills	NPTEL		<b>4</b>
<b>36</b>	Learn to Program: The Fundamentals	<a href="https://www.coursera.org/learn/learn-to-program">https://www.coursera.org/learn/learn-to-program</a>	University of Toronto	<b>3</b>
<b>37</b>	Ethics	NPTEL		<b>4</b>
<b>38</b>	Learn to Program: The Fundamentals	Coursera		<b>3</b>
<b>39</b>	Natural Language Processing (NLP)	<a href="https://www.edx.org/course/natural-language-processing-nlp">https://www.edx.org/course/natural-language-processing-nlp</a>	Microsoft	<b>4</b>
<b>40</b>	Object Oriented Programming in Java	<a href="https://www.edx.org/course/object-oriented-programming-in-java">https://www.edx.org/course/object-oriented-programming-in-java</a>	Microsoft	<b>3</b>
<b>41</b>	Programming in R for Data Science	<a href="https://www.edx.org/course/programming-in-r-for-data-science">https://www.edx.org/course/programming-in-r-for-data-science</a>	Microsoft	<b>3</b>
<b>42</b>	Programming with Python for Data Science	<a href="https://www.edx.org/course/programming-with-python-for-data-science">https://www.edx.org/course/programming-with-python-for-data-science</a>	Microsoft	<b>5</b>
<b>43</b>	Introduction to C#	<a href="https://www.edx.org/course/introduction-to-c-sharp">https://www.edx.org/course/introduction-to-c-sharp</a>	Microsoft	<b>1</b>
<b>44</b>	Introduction to C++	<a href="https://www.edx.org/course/introduction-to-c-plus-plus">https://www.edx.org/course/introduction-to-c-plus-plus</a>	Microsoft	<b>1</b>
<b>45</b>	Introduction to Artificial Intelligence (AI)	<a href="https://www.edx.org/course/introduction-to-artificial-intelligence-ai">https://www.edx.org/course/introduction-to-artificial-intelligence-ai</a>	Microsoft	<b>1</b>
<b>46</b>	Advanced C++	<a href="https://www.edx.org/course/advanced-c">https://www.edx.org/course/advanced-c</a>	Microsoft	<b>1</b>
<b>47</b>	Introduction to Java	<a href="https://www.edx.org/course/introduction-java-programming">https://www.edx.org/course/introduction-java-programming</a>	Universidad Carlos III de	<b>3</b>

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

	Programming: Fundamental Data Structures and Algorithms	uc3mx-it-1-3x	Madrid	
<b>48</b>	Software Engineering: Introduction	<a href="https://www.edx.org/course/software-engineering-introduction-ubcx-softeng1x">https://www.edx.org/course/software-engineering-introduction-ubcx-softeng1x</a>	University of British Columbia	<b>5</b>
<b>49</b>	HTML5 and CSS Fundamentals	<a href="https://www.edx.org/course/html5-css-fundamentals-w3cx-html5-0x-0">https://www.edx.org/course/html5-css-fundamentals-w3cx-html5-0x-0</a>	World Wide Web Consortium (W3C)	<b>3</b>
<b>50</b>	CSS Basics	<a href="https://www.edx.org/course/css-basics-w3cx-css-0x-0">https://www.edx.org/course/css-basics-w3cx-css-0x-0</a>	World Wide Web Consortium (W3C)	<b>3</b>
<b>51</b>	Program a Server-Side Application using ASP.NET Core	<a href="https://www.edx.org/course/program-a-server-side-application-using-aspnet-core">https://www.edx.org/course/program-a-server-side-application-using-aspnet-core</a>	Microsoft	<b>2</b>
<b>52</b>	Introduction to Cloud Infrastructure Technologies	<a href="https://www.edx.org/course/introduction-cloud-infrastructure-linuxfoundationx-lfs151-x">https://www.edx.org/course/introduction-cloud-infrastructure-linuxfoundationx-lfs151-x</a>	Linux Foundation	<b>3</b>
<b>53</b>	Introduction to Internet of Things	<a href="https://onlinecourses.nptel.ac.in/noc18_cs46/preview">https://onlinecourses.nptel.ac.in/noc18_cs46/preview</a>	NPTEL	<b>4</b>
<b>54</b>	Social Networks	<a href="https://onlinecourses.nptel.ac.in/noc18_cs56/preview">https://onlinecourses.nptel.ac.in/noc18_cs56/preview</a>	NPTEL	<b>4</b>
<b>55</b>	Fundamental of Curriculum in Engineering Education	<a href="https://swayam.gov.in/learningpath/Certificate">https://swayam.gov.in/learningpath/Certificate</a>	SWAYAM	<b>2</b>
<b>56</b>	Introduction to Information Security - I	<a href="https://swayam.gov.in/courses/1303-introduction-to-information-security-i">https://swayam.gov.in/courses/1303-introduction-to-information-security-i</a>	SWAYAM	<b>2</b>
<b>57</b>	Art of C Programming	<a href="https://swayam.gov.in/courses/5012-art-of-c-programming">https://swayam.gov.in/courses/5012-art-of-c-programming</a>	SWAYAM	<b>4</b>
<b>58</b>	Programming Fundamentals	<a href="https://www.coursera.org/learn/programming-fundamentals">https://www.coursera.org/learn/programming-fundamentals</a>	Duke University	<b>3</b>
<b>59</b>	Cloud Computing Concepts, Part 1	<a href="https://www.coursera.org/learn/cloud-computing">https://www.coursera.org/learn/cloud-computing</a>	University of Illinois at Urbana-Champaign	<b>2</b>
<b>60</b>	Object Oriented Programming in Java	<a href="https://www.coursera.org/learn/object-oriented-java">https://www.coursera.org/learn/object-oriented-java</a>	University of California San	<b>3</b>

**Syllabus for Bachelor of Computer Application (BCA) Programme**  
(Effective for Students Admitted in Academic Session 2018-2019)

			Diego	
<b>61</b>	Switching Circuits and Logic Design	<a href="https://onlinecourses.nptel.ac.in/noc18_cs30/preview">https://onlinecourses.nptel.ac.in/noc18_cs30/preview</a>	IIT Kharagpur	<b>4</b>
<b>62</b>	Computer Architecture	<a href="https://onlinecourses.nptel.ac.in/noc18_cs29/preview">https://onlinecourses.nptel.ac.in/noc18_cs29/preview</a>	IIT Madras	<b>4</b>
<b>63</b>	English Language for Competitive Exams	<a href="https://onlinecourses.nptel.ac.in/noc18_hs28/preview">https://onlinecourses.nptel.ac.in/noc18_hs28/preview</a>	IIT Madras	<b>2</b>
<b>64</b>	Soft Skills	<a href="https://onlinecourses.nptel.ac.in/noc18_hs29/preview">https://onlinecourses.nptel.ac.in/noc18_hs29/preview</a>	IIT Roorkee	<b>4</b>
<b>65</b>	Technical English for Engineers	<a href="https://onlinecourses.nptel.ac.in/noc18_hs27/preview">https://onlinecourses.nptel.ac.in/noc18_hs27/preview</a>	IIT Madras	<b>2</b>

A total of 16 (sixteen) credit points has to be accumulated by a student during the span of 3-year BCA course with a division as follows:

- First Year: 6 credits (Minimum) - 8 credits (Maximum)
- Second Year: 4 credits (Minimum) - 6 credits (Maximum)
- Third Year: 4 credits (Maximum)

Out of the requisite 16 (sixteen) credit points to be accumulated by a student during the span of 3-year BCA course, exactly 6 (six) credit points must be accumulated from courses with Sl. No. 30, 31, 32, 34, 35, 63, 64 and 65.

If a student accumulates the minimum credit point (6) during first year, he/she needs to accumulate the maximum credit point

(6) during second year. Accordingly he/she needs to accumulate the required credit point during third year to satisfy the requirement of 16 credit points.