

# BS Software Engineering

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## Semester 1

Course Code	Course Title	Credit Hours
CSI – 301	Programming Fundamentals	4 ( 3 -1)
CSI – 303	Introduction to Computing	4 ( 3 -1)
ENG-321	English-I (Functional English)	3 ( 3 – 0)
IST – 302	Islamic and Pakistan Studies	3 ( 3 – 0)
MTH-301	Calculus and Analytical Geometry	3 ( 3 – 0)
	<b>Total</b>	<b>17</b>

## Semester 2

Course Code	Course Title	Credit Hours
CSI – 302	Object Oriented Programming	4 ( 3 – 1)
CSI – 304	Discrete Structures	3 ( 3 – 0)
ENG-322	English-II (Technical and Report Writing)	3 ( 3 – 0)
STA-302	Probability and Statistics	3 ( 3 – 0)
MTH-304	Advanced Calculus	3 ( 3 – 0)
EET-302	Basic Electronics	3 ( 3 – 0)
	<b>Total</b>	<b>19</b>

## Semester 3

Course Code	Course Title	Credit Hours
CSI – 401	Data Structure and Algorithms	3 ( 2 – 1)
CSI – 403	Digital Logic and Design	3 ( 2 – 1)
CSE- 401	Introduction to Software Engineering	3 ( 3 – 0)
ENG-401	English-III (Communication Skills)	3 ( 3 – 0)
CSI – 405	Introduction to Database Systems	4 ( 3 -1)
	<b>Total</b>	<b>16</b>

## Semester 4

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
CSI – 402	Operating Systems	3 ( 2 – 1)
CSE -402	Software Engineering-II	4 ( 3 -1)
CSE -404	Software Construction	3 ( 2 – 1)
MTH-402	Linear Algebra	3 ( 3 – 0)
CSI – 404	Design and Analysis of Algorithms	3 ( 3 – 0)
SOC-401	Sociology	3 ( 3 – 0)
	<b>Total</b>	<b>19</b>

## Semester 5

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
CSI – 501	Web-Engineering	3 ( 2 – 1)
CSI – 503	Theory of Automata & Formal Languages	3 ( 3 – 0)
CSE -501	Software Requirements Engineering	3 ( 2 – 1)
CSE -503	Formal Methods in Software Engineering	3 ( 3 – 0)
CSE -505	Software Engineering Economics	3 ( 3 – 0)
BBA-501	Human Resource Management	3 ( 3 – 0)
	<b>Total</b>	<b>18</b>

## Semester 6

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
CSI – 502	Computer Communications and Networks	3 ( 2 – 1)
CSI – 504	Computer Graphics	3 ( 2 – 1)
CSI – 506	Artificial Intelligence	3 ( 2 – 1)
CSE -502	Software Design and Architecture	3 ( 2 – 1)
CSE -504	Software Quality Engineering	3 ( 2 – 1)
CSE -502	Enterprise Security Architecture	3 ( 3 – 0)
	<b>Total</b>	<b>18</b>

# Semester 7

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
CSI – 601	Human Computer Interaction	3 ( 3 – 0)
CSE -601	Software Project Management	3 ( 3 – 0)
CSE -603	Software Metrics	3 ( 3 – 0)
CSE-601	Mathematical tools for Software Engineering	3 ( 3 – 0)
BBA-601	Marketing	3 ( 3 – 0)
ENG-601	English for Employment	3 ( 3 – 0)
	<b>Total</b>	<b>18</b>

# Semester 8

<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>
CSE -602	Professional Practices	3 ( 3 – 0)
CSI – 630	Senior Design Project	6 ( 0 – 6)
	<b>Total</b>	<b>09</b>