



## BON SECOURS COLLEGE FOR WOMEN (AUTONOMOUS)

Accredited with A++ Grade by NAAC in Cycle II  
Affiliated to Bharathidasan University, Tiruchirappalli  
UGC Recognized 2(f) and 12(B) Institution  
VILAR BYPASS, THANJAVUR - 613 006, TAMIL NADU

**Programme: M.Sc., Mathematics**

### Semester Wise Credit Distribution, Marks and Contact Hours

Part	Type of Course	Course Code	Title of the Course	Credits	Marks	Contact Hours/Week
<b>SEMESTER-I</b>						
III	Core - Theory I	24PMA101	Algebra	4	100	5
III	Core - Theory II	24PMA102	Real Analysis	4	100	5
III	Core - Theory III	24PMA103	Ordinary & Partial Differential Equations	4	100	5
III	Core Laboratory – I	24PMA301	Optimization Techniques	2	100	4
III	Elective Theory – I	24PMA201/ 24PMA204/ 24PMA207	Algebraic Topology / Fuzzy Mathematics / Mathematical Modelling	4	100	5
III	Elective Theory – II	24PMA210/ 24PMA213/ 24PMA216/ 24PMA219	Mathematical Foundation for Data Science/ Data Structure & Algorithms/ Financial Mathematics/ Data Base Management System	4	100	4
III	Core Research Review – I	24PMA601	Research Review on the current trends in the Mathematics	2	100	2
			<b>Sub – Total</b>	<b>24</b>	<b>700</b>	<b>30</b>
<b>SEMESTER-II</b>						
III	Core - Theory IV	24PMA104	Topology	4	100	6
III	Core - Theory V	24PMA105	Complex Analysis	4	100	5
III	Core - Theory VI	24PMA106	Advanced Numerical Analysis	4	100	6
III	Core - Theory VII	24PMA107	Integral Equations and Calculus of Variations	4	100	5
III	Core - Theory VIII	24PMA108	Graph Theory	4	100	5
III	Core Article Publication – I	24PMA602	Publication of Article in Research Journal	-	-	1
III	Ability (Skills) Enhancement Courses	24PMA451	<b>Innovation Skills:</b> Technological Advances Using Mathematics	1	100	2
			<b>Sub – Total</b>	<b>21</b>	<b>600</b>	<b>30</b>

<b>Semester III</b>						
III	Core – Theory IX	24PMA109	Stochastic Processes	4	100	4
III	Core – Theory X	24PMA110	Classical Mechanics	4	100	5
III	Elective Theory – III	24PMA202/ 24PMA205/ 24PMA208	Calculus Fuzzy Graph Introduction to Cryptography	4	100	5
III	Elective Theory – IV	24PMA211/ 24PMA214/ 24PMA217/ 24PMA220	Statistical Methods / Object Oriented Programming / Stochastic Calculus / Business Intelligence Tools	4	100	5
III	Core Laboratory – II	24PMA302	Fundamentals in LaTeX Lab	2	100	4
III	Core Article Publication – I	24PMA602	Publication of Article in Research Journal	-	-	1
III	Application Development	24PMA603	Mathematical Game Theory and Game Development	2	100	4
III	Ability (Skills) Enhancement Courses	24PMA401	Cultivating Analytical and Professional Skills	1	100	2
			<b>Sub – Total</b>	<b>21</b>	<b>700</b>	<b>30</b>
<b>SEMESTER-IV</b>						
III	Core – Theory XI	24PMA111	Functional Analysis	4	100	5
III	Core – Theory XII	24PMA112	Differential Geometry	4	100	5
III	Elective Theory – V(Self Study)	24PMA203/ 24PMA206/  24PMA209	Probability & Statistics Fuzzy Sets & Operations Research Applied Stochastic Modelling	4	100	5
III	Elective Theory – VI	24PMA212/ 24PMA215 / 24PMA218/  24PMA221	Discrete Structures & Automata Theory Software Engineering Computational Methods in Finance Data Mining	4	100	5
III	Core Article Publication – I	24PMA602	Publication of Article in Research Journal	2	100	2
III	Core: Internship	24PMA604	Internship	2	100	-
III	Core: Project	24PMA605	Research Project	4	100	8
			<b>Sub – Total</b>	<b>24</b>	<b>700</b>	<b>30</b>

**Total Credits: 24+21+21+24 = 90**

**Total Marks :700 + 600 + 700 + 700 = 2700**