

Amrita Vishwa Vidyapeetham  
Curriculum - B.Sc, B.Ed (Physics, Mathematics, Computer Science)

Semester I				Semester II			
Course Code	Title	L T P	Credit	Course Code	Title	L T P	Credit
18ENG101	Communicative English	2 0 2	3	18ENG121	Professional Communication	1 0 2	2
	Language I	1 0 2	2		Language II	1 0 2	2
18CUL101	Cultural Education & Yoga	2 0 0	2	18CUL111	Cultural Education & Yoga	2 0 0	2
18PHY103	Physics Paper I <b>Mechanics</b>	3 0 2	4	18PHY112	Physics Paper II <b>Waves, Heat and Thermodynamics</b>	3 0 2	4
18MAT101	Mathematics Paper I <b>Calculus</b>	3 1 0	4	18MAT118	Mathematics Paper II <b>Matrices and Vector Calculus</b>	3 1 0	4
18CSA104	Computer Science Paper I <b>Computer Fundamentals and C Programming</b>	3 0 2	4	18CSA115	Computer Science Paper II <b>Basics of Computer Networks and Web Technology</b>	3 0 2	4
18ENV300	Environmental Science and Sustainability	3 0 0	3	18LAW201	Indian Constitution	2 0 0	2
	<b>Subtotal</b>		<b>22</b>		<b>Subtotal</b>		<b>20</b>
Semester III				Semester IV			
Course Code	Title	L T P	Credit	Course Code	Title	L T P	Credit
18EDU201	Growth & Development of Child	2 1 0	3	18EDU211	Learning & Teaching	2 1 0	3
18EDU280	Reading and Reflecting on text	0 1 2	2	18EDU212	Inclusive School	2 0 0	2
18AVP201	Amrita Value Programme	1 0 0	1	18AVP211	Amrita Value Programme	1 0 0	1
18PHY202	Physics Paper III <b>Electricity and Magnetism</b>	3 0 2	4	18PHY215	Physics Paper IV <b>Optics</b>	3 0 2	4
18MAT201	Mathematics Paper III <b>Differential Equations</b>	3 1 0	4	18MAT222	Mathematics Paper IV <b>Modern Algebra</b>	3 1 0	4
18CSA204	Computer Science Paper III <b>Object Oriented Programming</b>	3 0 2	4	18CSA213	Computer Science Paper IV <b>Data Base Management Systems</b>	3 0 2	4
18EDU202	Gender School and Society	2 0 0	2	18EDU282	ICT in Education	0 1 2	2
18EDU281	Drama and Art in Education	0 0 2	1	18SSK211	Life Skills II	1 0 2	2
18SSK201	Life Skills I	1 0 2	2				
	<b>Subtotal</b>		<b>23</b>		<b>Subtotal</b>		<b>22</b>
Semester V				Semester VI			
Course Code	Title	L T P	Credit	Course Code	Title	L T P	Credit
18PHY305	Physics Paper V <b>Basic Electronics</b>	3 0 0	3	18PHY316	Physics Paper VII <b>Atomic and Molecular Physics</b>	3 0 0	3
18PHY381	Physics Paper VI - Practical paper <b>Practicals – VI</b>	0 1 2	2	18PHY382	Physics Paper VIII - Practical paper <b>Practicals – VIII</b>	0 1 2	2
18EDU301 OR 18EDU303	Pedagogy of Physics OR Pedagogy of Chemistry	2 0 2	3	18EDU311 OR 18EDU313	Advanced Pedagogy of Physics OR Advanced Pedagogy of Chemistry	2 0 2	3
18MAT301	Mathematics Paper V <b>Real Analysis</b>	2 1 0	3	18MAT632	Mathematics Paper VII <b>Complex Analysis</b>	2 1 0	3
18MAT112	Mathematics Paper VI <b>Discrete Mathematics</b>	1 1 0	2	18MAT202	Mathematics Paper VIII <b>Probability and Statistics</b>	1 1 0	2
18CSA304	Computer Science Paper V <b>Introduction to Data Structures and Algorithms</b>	3 0 0	3	18CSA314	Computer Science Paper VII <b>System programming and operating system</b>	3 0 0	3
18CSA381	Computer Science Paper VI -Practical Paper <b>Data Structures and Algorithms Lab</b>	0 1 2	2	18CSA382	Computer Science Paper VIII -Practical Paper <b>System Programming and Operating system Lab</b>	0 1 2	2
18EDU302	Pedagogy of Mathematics	2 0 2	3	18EDU312	Advanced Pedagogy of Mathematics	2 0 2	3
	Open Electives	3 0 0	3	18EDU381	Skill Development	0 1 2	2
				18EDU390	Internship - I		1
	<b>Subtotal</b>		<b>24</b>		<b>Subtotal</b>		<b>24</b>
<b>Total Credits till VI Semester - 135</b>							
Semester VII				Semester VIII			
Course Code	Title	L T P	Credit	Course Code	Title	L T P	Credit
18EDU590	Internship - II		10		Elective *	3 0 0	3
18EDU501	Assessment for Learning	2 1 0	3	18EDU511	Knowledge & Curriculum	2 0 0	2
18EDU581	Understanding the self	0 1 2	2	18EDU512	School Management	3 0 0	3
				18EDU513	Education in Contemporary India	3 0 0	3
				18EDU599	Project		4
	<b>Subtotal</b>		<b>15</b>		<b>Subtotal</b>		<b>15</b>
<b>Total Credits - 165</b>							

**\* Electives:**

18EDU531	Educational Research
18EDU532	Guidance and Counselling
18EDU533	Vocational Education
18EDU534	Health & Physical Education

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18MAT101	Mathematics Paper I <b>Calculus</b>	3 1 0	4	18MAT118	Mathematics Paper II <b>Matrices and Vector Calculus</b>	3 1 0	4
18CHY102	Chemistry Paper I <b>Atomic structure, Chemical Bonding and Analytical Chemistry</b>	3 0 2	4	18CHY112	Chemistry Paper II <b>Nuclear Chemistry, States of Matter and Chemistry of s and p Block elements</b>	3 0 2	4
18ENV300	Environmental Science and Sustainability	3 0 0	3	18LAW201	Indian Constitution	2 0 0	2
	<b>Subtotal</b>		<b>22</b>		<b>Subtotal</b>		<b>20</b>
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18MAT201	Mathematics Paper III <b>Differential Equations</b>	3 1 0	4	18MAT222	Mathematics Paper IV <b>Modern Algebra</b>	3 1 0	4
18CHY201	Chemistry Paper III <b>Hydrocarbons, Alkyl and Aryl Halides</b>	3 0 2	4	18CHY211	Chemistry Paper IV <b>Thermodynamics, Chemical Equilibrium and Electrochemistry</b>	3 0 2	4
18EDU202	Gender School & Society	2 0 0	2	18EDU282	ICT in Education	0 1 2	2
18EDU281	Drama & Art in Education	0 0 2	1	18SSK211	Life Skills II	1 0 2	2
18SSK201	Life Skills I	1 0 2	2				
	<b>Subtotal</b>		<b>23</b>		<b>Subtotal</b>		<b>22</b>
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18PHY381	Physics Paper VI - Practical paper <b>Practicals – VI</b>	0 1 2	2	18PHY382	Physics Paper VIII - Practical paper <b>Practicals – VIII</b>	0 1 2	2
18EDU301 OR 18EDU303	Pedagogy of Physics OR Pedagogy of Chemistry	2 0 2	3	18EDU311 OR 18EDU313	Advanced Pedagogy of Physics OR Advanced Pedagogy of Chemistry	2 0 2	3
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18MAT112	Mathematics Paper VI <b>Discrete Mathematics</b>	1 1 0	2	18MAT202	Mathematics Paper VIII <b>Probability and Statistics</b>	1 1 0	2
18CHY305	Chemistry Paper V <b>Transition elements, Coordination compounds, Chemical kinetics and Spectroscopy</b>	3 0 0	3	18CHY311	Chemistry Paper VII <b>Functional Groups, Heterocyclic compounds and Natural products</b>	3 0 0	3
18CHY381	Chemistry Paper VI -Practical Paper Practicals- VI	0 1 2	2	18CHY382	Chemistry Paper VIII -Practical Paper Practicals VIII	0 1 2	2
18EDU302	Pedagogy of Mathematics	2 0 2	3	18EDU312	Advanced Pedagogy of Mathematics	2 0 2	3
	Open Electives	3 0 0	3	18EDU381	Skill Development	0 1 2	2
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