

**MBSL-102 Course content schedule 2024-2025**

<b>Date</b>	<b>Subjects</b>	<b>Book</b>	<b>Exercises</b>
10-9	- vectors - dot products	16.1 - 16.3, 16.5, 16.6	<b>16.11:</b> 1, 2, 3(i,ii), 4(i,ii), 6, 7, 9, 11, 19, 21, 22, 23, 24, 27
12-9	- revision algebra - revision trigonometry - revision polar coordinates - revision logarithm - revision derivatives	2.1 - 2.6, 3.1, 3.2, 3.4, 3.5, 3.6 - 3.8, 4.1 - 4.6	<b>2.9:</b> 10, 12, 14, 16, 20, 24, 26, 32, 34 <b>3.10:</b> 3, 4, 6, 8, 12, 20, 24, 27, 28, 29, 30, 39, 40, 42 <b>4.13:</b> 24, 26, 27, 28, 30, 32, 38, 43, 44, 54
17-9	- implicit derivative - revision optimization - revision integration	4.7, 4.10 5.1 - 5.4, 5.6 - 5.8	<b>4.13:</b> 66, 67, 68, 79, 80, 81, 85, 86 <b>5.9:</b> 3, 8, 10, 12, 17, 20, 26, 30, 31, 35, 37, 38, 49, 51(i),(ii),(iii)
19-9	- integration techniques: substitution, partial, and partial fraction decomposition	6.3, 6.4, 6.6	<b>6.8:</b> 11, 12, 13, 16, 17, 19, 20, 21, 27, 35, 45, 48, 49, 63, 64, 66 (feel free to practice with similar exercises)
24-9	- differential equations: separable & linear	11.1 - 11.5	<b>11.8 :</b> 6, 10, 12, 13, 14, 16, 17, 18, 19, 20, 22, 30, 31, 32, 33, 34, 35, 36, 37
1-10	- Maclaurin sequence - cross product	4.9, 7.6	<b>4.13:</b> 74, 76 <b>7.9:</b> 58, 59, 61, 65, 72 (i) en (ii) <b>16.11:</b> 31, 33, 34, 35, 37
8-10	- complex numbers	8.1, 8.2, 8.3 (excl. de Moivre's - formula), 8.5	<b>8.8:</b> 3, 4, 5, 7, 8, 10, 12, 13, 14, 16, 19, 20, 23, 25, 30, 31, 32, 34, 35, 36, 40, 42
15-10	- permutations and combinations - binomial distribution - least squares	21.5, 21.6 , 21.10	<b>21.12:</b> 12, 13, 16, 17, 18, 19, 20, 21, 22, 26, 27
22-10	- functions of multiple variables - partial derivatives - total differential	9.1, 9.2, 9.3, 9.5	<b>9.12:</b> 1, 4, 5, 6, 7, 8, 11, 14, 17, 18, 32, 35, 36