

**MS in Cellular and Molecular Medicine and M.Sc. in Biotechnology - Dual Degree
Programme
Curriculum (2020)**

SEMESTER I

S. No.	Course Code	Course Title	Credits
Subjects taught by Amrita Vishwa Vidyapeetham			
1.	BIO 400	Cell Biology & Stem Cell Biology	3
2.	BIO404	Intellectual Property Rights	1
3.	MIC 480	Microbiology Lab	2
4.	BIO 482	Biochemistry Lab	2
5.	MAT 401	Biostatistics	3
6.	BIO 401	Molecular Biology	3
7.	BIO 419	Biochemistry	4
8.	MIC 407	Microbiology	2
Total semester credits taught by Amrita Vishwa Vidyapeetham			20
Subjects taught by University of Arizona			
9.	UAG 501	Maximizing UA Graduate School (non-credit bearing on degree)	1
10.	CMM 533	Molecular Medicine	1
11.	CMM 535	Genomic Medicine	1
Total semester credits taught by University of Arizona			3
Total credits for Semester I			23

SEMESTER II

S. No.	Course Code	Course Title	Credits
Subjects taught by Amrita Vishwa Vidyapeetham			
1.	BIO 464	Cancer Biology (BT/MB Elective I)	3
2.	BIO 403	Molecular Genetics	3
3.	BIO 408	Recombinant DNA Technology	3
4.	BIO 528	Adv. Pharmaceutical Biotechnology	3
5.	BIO 418	Industrial Biotechnology	3
6.	BIO 424	Bioanalytical Techniques	3
7.	BIO 481	Recombinant DNA Technology Lab	2
Total semester credits taught by Amrita Vishwa Vidyapeetham			20
Subjects taught by University of Arizona			
8.	CMM 603*	The Art of Scientific Discovery	2
9.	CMM 520	Clinical Cancer Genetics	2
10.	CMM 541	Bright-Field Microscopy	1

11.	CMM 546	Fluorescence Microscopy	1
12.	CMM 542	Digital Imaging	1
Total semester credits taught by University of Arizona			7
Total credits for Semester II			27

SEMESTER III

S. No.	Course Code	Course Title	Credits
Subjects taught by Amrita Vishwa Vidyapeetham			
1.		BT Elective II	3
2.	BIO 410	Adv. Discovery Biology	3
3.	BIO 526	Plant & Animal Biotechnology	3
4.	BIO 527	Mass Spectrometry & Proteomics	3
5.	BIF 514	Bioinformatics	3
6.	BIO 584	Immunology Lab	2
7.	BIO 588	Cell & Molecular Biology Lab	2
Total semester credits taught by Amrita Vishwa Vidyapeetham			19
Subjects taught by University of Arizona			
8.		CMM Elective	1
9.		CMM Elective	1
10.	CMM 547	Histology Basics	1
11.	CMM 548	Histology of the Digestive & Respiratory Systems	1
12.	CMM 549	Histology of the Urogenital & Endocrine Systems	1
Total semester credits taught by University of Arizona			5
Total credits for Semester III			24

SEMESTER IV

S. No.	Course Code	Course Title	Credits
Subjects taught by Amrita Vishwa Vidyapeetham			
1.	BIO 559	Thesis	10
Total semester credits taught by Amrita Vishwa Vidyapeetham			10
Total credits for Semester IV			10
Total credits for the programme			84