**TENTATIVE**

# BITS Pilani Dubai Campus, Dubai, UAE

Semester-wise pattern for Students Admitted to Higher Degree Program in the Second Semester

***(Operative from Academic Year 2011-12 onwards, Ref.:- Base charts approved by Senate 159 and Senate 160)***

## M.E. Biotechnology

| Year | I Semester | U | II Semester @ | U | Summer Term | U |
|---|---|---|---|---|---|---|
| I | | | BIO G512 Molecular Mechanism of Gene Expression<br>BIO G525 Environmental Biotechnology and Waste Management#<br>Elective | 5<br>5<br>* | BIO G542 Advanced Cell and Molecular Biology<br>Elective | 5<br>* |
| | | | | 13 (min.) | | 8 (min.) |
| II | BITS G540 Research Practice<br>BIO G524 Animal Cell Technology$<br>BIO G643 Plant Biotechnology#<br>Elective | 4<br>5<br>5<br>* | BIO G523 Advanced and Applied Microbiology<br>Elective<br>Elective | 5<br>*<br>* | BITS G629T Dissertation<br>Elective | 5<br>* |
| | | 17 (min.) | | 11 (min.) | | 8 (min.) |
| III | Elective<br>BITS G629T Dissertation | *<br>11 | | | | |
| | | 14 (min.) | | | | |

* Minimum 3 Units each Elective; @ required to register: BITS F437 Technical Communication (3 0 3), unless he/she clears a diagnostic test specially designed for the same.;
$ : New Course; # : Modified course.

## Pool of Electives (Any Seven from the following)

Elective offerings are subject to availability of (i) faculty who can offer the elective and (ii) the minimum viable no. of students opting for the elective

1. BIO C417 Biomolecular Modeling 3 0 3
2. BIO C421 Enzymology 3 0 3
3. BIO C441 Biochemical Engineering 3 0 3
4. BIO C461 Recombinant DNA Technology 3 0 3
5. BIO C461 Bioethics and Biosafety 3 0 3
6. BIO G513 Microbial and Fermentation Technology 3 2 5
7. BIO G514 Molecular Immunology 3 2 5
8. BIO G515 Stem Cell and Regenerative Biology 3 1 4
9. BIO G522 Interferon Technology 3 1 4
10. BIO G526 Cancer Biology$ 3 0 3
11. BIO G532 Biostatistics and Biomodelling 3 1 4
12. BIO G612 Human Genetics 3 2 5
13. BIO G631 Membrane and Liposome Technology 3 1 4
14. BIO G632 Transgenic Technology 3 2 5
15. BIO G642 Experimental Techniques 4
16. BIO G651 Protein and Enzyme Bioengineering 3 2 5
17. BIO G661 Gene Toxicology 3 1 4
18. BIO G671 Bioconversion Technology 3 2 5
19. EA C414 Introduction to Bioinformatics 3 0 3

**Note:**
1. Semester wise pattern given above is as suggested by the appropriate Senate-appointed committee, subject to change if the situation warrants.
2. Pool of Electives listed above are currently approved by Senate, subject to change if the situation warrants.
3. Upon comparing the student's input degree curriculum with BITS degree curriculum, if a student is found to be inadequately prepared, one or more Deficiency courses may be prescribed and added to the courses of the Semester wise pattern (Chart) given above.