MANGALORE UNIVERSITY

DEPARTMENT OF BIOSCIENCES

MSc BIOTECHNOLOGY

BTP 555 ANIMAL BIOTECHNOLOGY

Course outcome

The student will

- Learn the set-up of a typical cell culture laboratory
- Acquire sterilization techniques
- Learn the use different media
- Acquire techniques used in animal cell culture.

Cleaning and sterilization methods for tissue culture
Preparation of media, buffers
Maintenance of cultures (normal and tumor cell lines)
Separation of peripheral blood mononuclear cells
Cell counting (hemocytometer)
Lymphocyte culture technique
In vitro macrophage culture from mouse
Preparation of human metaphase chromosomes
Cell viability tests
Cell proliferation assay
Growth kinetics of cells in culture
In vitro fertilization and embryo transfer techniques
Cryopreservation techniques
Cytotoxicity tests