**LL4007V/LL5007V/LL6007V  Biotechnology Law**

This course will deal with the basic intellectual property, ethical and policy issues in biotechnological innovations. It will focus mainly on patent issues including the patentability of biological materials, gene sequences, stem cells, animals, plants and humans; infringement, ownership among others. Students will also be acquainted with genetic copyright and trade secrets protection. Apart from Singapore law, a comparative analysis of the approaches in Europe, US, Australia, New Zealand and India will also be explored. Students will also be introduced to the major international conventions in the field of biotechnology. In addition, student will also be taught the Science of Genetics so as to enable them to have a better understanding of the various aspects of the biotechnologies involved.

This module will be of interest to all who wish to gain greater insights into this rapidly developing field of technology from an intellectual property (particularly patent law) perspective.

Prior knowledge of biology or patent law will be useful but is not necessary, as all students will be introduced to the fundamentals of biology and genetics. There will also be a brief introduction to patent law.

At the end of the course, participants should be able to:

1. **Develop understanding of** the important role that patent plays in the protection of the research and development in the biotechnology industry, as well as, its intersection with access and public health.

2. **Critically analyze the challenging issues on biotechnological inventions from an international and comparative perspective.**

3. **Develop an awareness of** the impact of recent developments in the biotechnological field and the challenges posed to patent law, including the ethical and social dimensions.

The structure of the course is as follows (subject to change):

**SEMINAR ONE:** INTRODUCTION

**SEMINAR TWO:** INTERNATIONAL CONVENTIONS AND TREATIES IN BIOTECHNOLOGY LAW

**SEMINAR THREE:** INTERNATIONAL CONVENTIONS AND TREATIES IN BIOTECHNOLOGY LAW

**SEMINAR FOUR:** INTRODUCTION TO PATENT LAW

**SEMINAR FIVE:** INTRODUCTION TO THE SCIENCE OF GENETICS AND BIOLOGY

**SEMINAR SIX:** INTRODUCTION TO THE BIO-INDUSTRY

**SEMINAR SEVEN:** WHAT CONSTITUTES PATENT-ELIGIBLE SUBJECT MATTER OF BIOTECHNOLOGY? PATENT ELIGIBILITY OF SPECIFIC BIOTECHNOLOGICAL SUBJECT-MATTER: GENES, STEM CELLS ETC. – COMPARATIVE ANALYSIS OF VARIOUS JURISDICTIONS

**SEMINAR EIGHT:** PATENT ELIGIBILITY OF SPECIFIC BIOTECHNOLOGICAL SUBJECT-MATTER: GENES, STEM CELLS ETC. – COMPARATIVE ANALYSIS OF VARIOUS JURISDICTIONS

**SEMINAR NINE:** PATENT ELIGIBILITY OF SPECIFIC BIOTECHNOLOGICAL SUBJECT-MATTER: ANIMALS AND PLANTS – COMPARATIVE ANALYSIS OF VARIOUS JURISDICTIONS

**SEMINAR TEN:** ARE METHODS OF MEDICAL TREATMENT PATENTABLE?

**SEMINAR ELEVEN:** ARE MEDICAL PRODUCTS PATENTABLE? NOVELTY AND EVER-GREENING

**SEMINAR TWELVE:** PATENT CLAIM CONSTRUCTION & INFRINGEMENT/DEFENCES

The course assessment is in the form of a research paper, with a student presentational depending on student subscription.