

	relationship to cancer.	
5	<b>Treatments for cancer</b> Traditional chemotherapies, Immunotherapy -targeted therapy, New genomic and proteomic technologies, Applications of new technologies in prevention, assessing risk, diagnostics, and treatment.	<b>9</b>
	Total	<b>42</b>

### Books: -

S. No.	Name of Authors /Books / Publishers
1	The Biology of Cancer, Volume 1 Robert A. Weinberg Garland Science
2.	Dunmock N.J And Primrose S.B., "Introduction to Modern Virology", Blackwell Scientific Publications, Oxford,
3.	"An Introduction Top Cellular And Molecular Biology of Cancer", j Oxford Medical Publications,

### **Pharmacogenomics and Personalized Medicine**

#### Details of course:-

Course Title	Course Structure			Pre-Requisite
	L	T	P	
Pharmacogenomics and Personalized Medicine(BT323)	3	1	0	NIL

#### Course Objectives:

The course incorporates the basics of Pharmacogenomics and its applications in personalized medicine

#### Course Outcomes:

1. Introduction to the roots of pharmacogenomics, learning its historical perspectives and status.
2. Understanding computational genome analysis of human genome.
3. Analysing of aspects influencing the method of selection and differentiating SNP and TaqMan Genotyping.
4. Analysing of aspects influencing the method of selection and differentiating SNP and TaqMan Genotyping.
5. Practical knowledge from different case studies

S. No.	Contents	Contact Hours
1.	Introduction to Pharmacogenomics: <b>The roots of pharmacogenomics, Historical Perspectives and Current Status</b>	<b>8</b>
2.	<b>The Human genome:</b> Computational genome analysis	<b>8</b>
3.	<b>Functional Analysis of Gene Variation &amp; Genotyping Techniques:</b> Aspects influencing method of selection, SNP Genotyping, TaqMan Genotyping	<b>8</b>
4.	<b>Pharmacogenomics in drug discovery:</b> The need of protein structure information, protein structure and variation in drug targets-the scale of problem, Mutation of drug targets leading to change in the ligand binding pocket.	<b>9</b>
5.	<b>Case Studies</b>	<b>9</b>
	<b>Total</b>	<b>42</b>

#### Books: -

S. No.	Name of Authors /Books / Publishers
1.	Pharmacogenomics: The Search for the Individualized Therapies”, Licinio, julio and Ma-Li Wong, Wiley-VCH,
2.	Pharmacogenomics: An Approach to New Drugs Development, Chakrabarty, Chiranjib and Bhattacharyya, Atane,
3.	Pharmacogenomics: Social, Ethical and Clinical Dimensions, Rothstein, Mark, A.Wiley-Liss,

### **Drug Design and Delivery**

#### Details of course:-

Course Title	Course Structure			Pre-Requisite
	L	T	P	
<b>Drug Design and Delivery (BT325)</b>	3	1	0	NIL

#### Course Objectives:

To familiarize B.Tech students with concepts in Drug Design and Development with emphasis on the role of Bioinformatics in lead identification and lead optimization. Students are also being given in depth knowledge of the regulations involved in translation of ‘bench to bedside’ of a new drug and its IPR regulations.