

Certificate in Genetic Counseling

Lecture	Duration
Week 1	
Introductory Lecture by Course Director	1_12212 00:29:10
Introduction to Course Structure - CGC	1_11974 00:02:19
Introducing Online Co-ordinator	1_11461 00:00:33
Week 2	
Week introduction by Course Moderator - CGC	1_12313 00:01:47
Cluster 1	
Block 1: Introduction to Human Genetics	
Unit 1: Overview of Human Genetics and Present Scenerio	
Lectures	
Basics of Human Genetics	1_11231 00:22:04
Genetic Tests for Better Health Care	1_11695 00:23:46
Unit 2: Chromosome	
Lectures	
Morphology of Chromosomes - I	1_12238 00:27:21
Morphology of Chromosomes - II	1_12239 00:11:59
Sex Chromosomes	1_12250 00:23:59
Structural Abnormalities Involving Human Chromosomes	1_12240 00:16:20
Numerical Chromosomal Abnormalities-01	1_4349 00:20:53
Unit 3: Cell Division and Cell Cycle Regulation	
Lectures	
Mitosis	1_2573 00:17:02
Meiosis	1_2502 00:23:00
Cell Cycle DNA Synthesis	1_11228 00:08:38
Week 3	
Week Introduction by Course Moderator - CGC	1_12408 00:01:12
Block 1: Introduction to Human Genetics	
Unit 4: Pedigree Taking and Analysis	
Lectures	
Pedigree Analysis - I	1_12236 00:26:59
Pedigree Analysis - II	1_12237 00:21:07
Block 2: Genetics and Inheritance	
Unit 5: Types of Inheritance	
Lectures	
Autosomal Dominant Inheritance	1_12234 00:18:42
Autosomal Dominant Inheritance-02	1_3983 00:26:03
Autosomal Recessive Inheritance-01	1_3980 00:17:42
Autosomal Recessive Inheritance-02	1_3981 00:19:05

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Lecture	Duration
Week 4	
Week Introduction by Course Moderator - CGC	1_12413 00:01:16
Block 3: Understanding Genetics at a Molecular level	
Unit 6: DNA Replication, Transcription and Translation	
Lectures	
DNA Structure and Replication-01	1_12204 00:15:09
DNA Structure and Replication-02	1_12206 00:07:04
DNA Transcription	1_12213 00:09:41
DNA Transcription-02	1_2186 00:19:36
DNA Translation - 01	1_12214 00:15:36
DNA Translation I-02	1_2188 00:22:03
DNA Translation - 02	1_12215 00:16:16
Unit 7: DNA Repair Mechanism	
Lectures	
DNA Repair - I	1_12205 00:02:39
DNA Repair - II	1_12245 00:07:34
Unit 8: Gene Concept	
Lectures	
Gene Concept - I	1_12216 00:16:45
Gene Concept - II	1_12217 00:15:14
Week 5	
Week Introduction by Course Moderator - CGC	1_12430 00:01:02
Block 3-Unit 9: Molecular Biology Techniques	
Lectures	
Molecular Biology Techniques-01	1_2193 00:24:37
Molecular Biology Techniques-02	1_2194 00:21:11
Block 4: Psychology and Medical Ethics	
Unit 10: Basics of Counseling	
Lectures	
Introduction to Counseling	1_11587 00:20:54
Introduction to Counseling_Revision	1_11588 00:01:50
Unit 11: Individual Counseling	
Lectures	
Individual Genetic Counseling	1_11426 00:28:30
Week 6	
Week Introduction by Course Moderator - CGC	1_12436 00:01:12
Block 4: Psychology and Medical Ethics	
Unit 12: Family Counseling	
Lectures	
Family Counseling	1_11579 00:16:43
Unit 13: Group Counseling	
Lectures	
Group Counseling	1_11581 00:20:07

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Lecture	Duration
Unit 14: Medical Ethics	
Lectures	
Medical Ethics - 01	1_11840 00:21:07
Medical Ethics - 02	1_11841 00:20:37
Medical Ethics - 03	1_11842 00:23:04
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Week 7	
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Week Introduction by Course Moderator - CGC	1_12461 00:00:52
Cluster 2	
Block 1 :Biochemical Basis of Genetics	
Unit 1 : Overview of Metabolism	
Lectures	
Overview of Metabolism - 01	1_12291 00:25:54
Overview of Metabolism - 02	1_12462 00:16:40
Unit 2 :Inborn Errors of Metabolism	
Lectures	
Inborn Metabolic Disorders	1_12292 00:11:42
Unit 3 :New Born screening	
Lectures	
Newborn Screening	1_12499 00:17:20
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Week 8	
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Week Introduction by Course Moderator - CGC	1_12457 00:01:03
Block 1 : Biochemical Basis of Genetics	
Unit 4 :Genetic Diseases Of Metabolic Pathways	
Lectures	
Genetic Diseases of Metabolic Pathways - I	1_12557 00:23:04
Genetic Diseases of Metabolic Pathways - II	1_12558 00:21:54
Block 2 : Immunology And Genetics	
Unit 5 : Immunology	
Lecture	
Immunology I -	1_3257 00:25:02
Immunology II	1_12566 00:16:18
Immunology III	1_12567 00:09:31
Genetic Aspects of Immunology - 01	1_12610 00:19:22
Genetic Aspects of Immunology - 02	1_12611 00:21:17
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Week 9	
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Block 2 :Immunology and Genetics	
Unit 6: Genetic Basis of Immunological Diseases	
Lectures	
Immunological Disorders	1_12568 00:11:18

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Lecture	Duration
Block 3 : Genetics of Reproductive System	
Unit 7 : Male Reproductive System And Spermatogenesis	
Lecture	
Male Reproductive System	1_12507 00:32:11
Unit 8 : Female Reproductive System and Oogenesis	
Lecture	
Female Reproductive System 1	1_3219 00:14:33
Female Reproductive System 2	1_12504 00:08:33
Week 10	
Block 3 : Genetics of Reproductive System	
Unit 9 : Menstrual Cycle	
Lecture	
Menstrual Cycle I	1_3229 00:16:09
Menstrual Cycle II	1_12565 00:10:56
Unit 10 : Fertilization And Physiological Changes In Pregnancy	
Lecture	
Fertilization and Pregnancy I	1_3223 00:19:37
Fertilization and Pregnancy II	1_12564 00:06:54
Unit 11 : Embryology In Brief	
Lecture	
Embryology In Brief	1_12722 00:10:08
Unit 12:Teratogenesis and teratogenic agents	
Lecture	
Teratology	1_12729 00:16:42
week 11	
Unit 13: Sex Determination, Differentiation and Development	
Lecture	
Part 01	1_12505 00:11:28
Part 02	1_12506 00:12:17
Unit 14 :Ambiguous Genitalia and X -linked Diseases	
Lecture	
Ambiguos Genitalia And X-linked Diseases	1_12723 00:21:29
Unit 15 :Genetics in Obstetrics and Gynecology	
Lecture	
Genetics in Obstetrics and Gynecology-01	1_11436 00:28:43
Genetics in Obstetrics and Gynecology-02	1_11442 00:28:17
Week 12	
Unit 16: Prenatal Diagnosis	
Lecture	
Pre Natal Diagnosis	1_12469 00:16:43

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Lecture	Duration
Week 14	
Cluster 3	
Block 1: Understanding Applications Of Genetics	
Unit 1: Overview of Cancer Genetics	
Lecture	
Cancer Genetics	1_12512 00:23:15
Unit 2: Overview of Epigenetics	
Lecture	
Epigenetics	1_13125 00:26:35
Unit 3: Dermatology and Genetics	
Lecture	
Skin as a Window to Genetic Diseases-01	1_11226 00:17:34
Skin as a Window to Genetic Diseases-02	1_11227 00:15:22
Week 15	
Unit 4: Oncogenes And Tumor Suppressor Genes	
Lecture	
Tumor Suppressor Genes and Oncogenes	1_13369 00:09:19
Unit 5: Dynamic Mutations	
Lecture	
Dynamic Mutations	1_13271 00:13:55
Unit 6: Mitochondrial Mutations	
Lecture	
Mitochondrial mutations	1_13272 00:14:46
Week 16	
Unit 7: Genetic Disorders	
Lecture	
Genetic Disorders	1_11229 00:31:43
Unit 8: Personalised medicine	
Lecture	
Understanding Pharmacogenomics and Personalized Medicine	1_12556 00:23:44
Week 17	
Block 2: Genetics and Hematology	
Unit 9: Hemoglobinopathies - Thalassemia, Sickle Cell Anemia	
Lecture	
Hemoglobinopathies	1_13135 00:30:29
Thalassemia	1_13134 00:10:27

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Lecture		Duration
Unit 10: Leukemias		
Lecture		
Leukemias-01	1_5237	00:18:03
Leukemias-02	1_5238	00:17:26
Chronic Leukemias-01	1_5258	00:16:34
Chronic Leukemias-02	1_5259	00:14:31
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Week 18		
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Unit 11: Lymphomas		
Lecture		
Lymphoma-01	1_5013	00:24:12
Lymphoma-02	1_5014	00:22:22
Unit 12: Transfusion Medicine		
Lecture		
Transfusion Medicine-01	1_5638	00:20:24
Transfusion Medicine-02	1_5639	00:19:15
Unit 13: Myelodysplastic Syndrome		
Lecture		
Myelodysplastic Syndrome-01	1_4747	00:20:12
Myelodysplastic Syndrome-02	1_4748	00:16:53
Myelodysplastic Syndrome-03	1_4749	00:19:46
Block 3: Cancer Genetics		
Unit 14: Apoptosis		
Lecture		
Apoptosis	1_12639	00:13:40
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Week 19		
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Unit 15: Gene Polymorphism : Diabetes Mellitus, Cancer and Infectious Diseases		
Lecture		
Gene Polymorphism: Diabetes Mellitus, Cancer and Infectious Diseases	1_13760	00:26:01
Unit 16: Hereditary Cancer Syndromes		
Lecture		
Hereditary Cancer Syndromes	1_13368	00:22:54
Unit 17: Breast Cancer		
Lecture		
Breast Cancer	1_12622	00:23:35
Unit 18: Cervical Cancer		
Lecture		
Cervical Cancer	1_13249	00:20:18

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Lecture	Duration
Week 20	
Unit 19: Endometrial Cancer	
Lecture Endometrial Cancer	1_13248 00:22:33
Unit 20: Head and Neck Cancer	
Lecture Head and Neck Cancer	1_13702 00:09:05
Unit 21: Gastro Intestinal Tract Cancer	
Lecture GIT Cancer	1_13703 00:22:01
Unit 22: Population Genetics	
Lecture Population Genetics	1_13761 00:26:00
Week 21	
Cluster 4	
Block 1 : Cytogenetic Tests	
Unit 1: Sex chromatin, Karyotyping and FISH	
Lecture Cytogenetics and Molecular Genetics Karyotype and Fish	1_11230 00:21:10
Unit 2: DNA Isolation	
Lecture Genomic DNA Isolation from Blood	1_13143 00:07:28
Unit 3: Gel Electrophoresis	
Lecture Gel Electrophoresis	1_13142 00:13:59
Unit 4: Polymerase Chain Reaction	
Lecture Basics on Polymerase Chain Reaction	1_13140 00:09:48
Unit 5: RFLP/ DNA Fingerprinting	
Lecture Restriction Fragment Length Polymorphism	1_13144 00:08:21
Week 22	
Unit 6: DNA sequencing Technologies	
Lecture DNA Sequencing Technologies-01	1_11540 00:19:30
DNA Sequencing Technologies-02	1_11541 00:18:49
Unit 7: Comet Assay	
Lecture Comet Assay	1_13141 00:09:19

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Lecture	Duration
Block 2: Laboratory and Radio diagnosis in Genetic Disorders	
Unit 8: Biochemical Tests	
Lecture Biochemical Tests	1_13759 00:11:00
Week 23	
Unit 9 : Hematological Tests	
Lecture Hematological Tests	1_13756 00:15:01
Unit 10 : Pathological Tests	
Lecture Pathological Tests	1_13757 00:09:55
Unit 11 : Infertility Tests	
Lecture Infertility Tests	1_13758 00:22:32