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| **GALGOTIAS UNIVERSITY**  Gautam Buddha Nagar  Greater Noida, Uttar Pradesh, India |
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**Course Topics: (Syllabus)**

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| Unit I : | *Environment & Natural Resources:* Definition, scope, importance, need for public awareness, Environmental Management Systems its objectives, components, EIA, Natural Resources – forest resources – use, exploitation, deforestation, construction of multipurpose dams – effect on forests, Water resources – use of surface and subsurface water; effect of floods, drought, water conflicts, Mineral resources – Use and exploitation, environmental effects of extracting and using mineral resources, Food resources – food problems, advantage and disadvantage of fertilizers & pesticides, effect on environment, Energy resources – need to develop renewable energy, land resources – Land degradation, land slides, soil erosion, desertification & case studies. |
| Unit II : | *Chemical Toxicology:* Toxic chemicals in the environment, Impact of toxic chemicals on enzymes, biochemical effects of arsenic, cadmium, lead, chromium, mercury, biochemical effects of pesticides. |
| Unit III: | *Environmental Pollution:* Definition – Causes, pollution effects and control measures of Air, Water, Soil, Marine, Noise, Thermal, Nuclear hazards. Solid waste management: causes, effects and control measures of urban and industrial wastes, pollution measures, case studies, Disaster management: floods, earthquake, cyclone and landslides. |
| Unit IV: | *Social Issues, Human Population and the Environment:* Urban problems related to energy & sustainable development, water conservation, problems related to rehabilitation – case studies, Consumerism and waste products - Environment Protection Act, Air, Water, Wildlife, Forest Conservation Act, Environmental legislation and public awareness. Population growth, variation among nations, Population explosion, Environment and human health, Value Education, Women and Child Welfare, Role of Information Technology – Visit to local polluted site /Case Studies. |
| Unit V: | *Green Technology:* Introduction, Basic principles of green technology, concept of Atom economy, Tools of Green technology, zero waste technology. |