MINUTES OF MEETING, BOARD OF STUDIES

SCHOOL OF EARTH AND ENVIRONMENTAL SCIENCES
And
AMITY CENTRE FOR OCEANIC AND ATMOSPHERIC SCIENCE AND TECHNOLOGY

Meeting of Board of studies of Amity School of Earth and Environmental Sciences (ASEES) and Amity Centre for Ocean- Atmospheric Science and Technology (ACOAST) was held on 21/07/2017 in the afternoon. Following members were present:

1.Dr R K Thakur
2. DrI S Thakur
3. Prof. (Dr.).P.C.S. Devara
4. Prof. (Dr.) C. P. Kaushik
5DrKushagraRajendra
6DrShaili S Nigam
7DrDeepika Pandey

Following was discussed in the meeting:

1. Revised program structure of M.Sc. Environmental Scienceand Management was presented in the meeting with total credits changed to 100 from 130 with the following changes:

   (a) Reduction in credits: Basic Mathematics, Statistical Tools and Research Methodology, Term paper (Sem I, II, III), Summer internship, Field survey and Research based project.

   (b) Combining two courses:
   Environmental Law & Governance and Environmental Impact Assessment & Management System combined to form Environmental Law andEnvironmental Impact Assessment

   (c) Scrapping of credits fromWorkshop (Sem II and III) and Project (Sem I)

2. PhD course work subject **Meteorology and Geospatial Technology**added to PhD programme of Amity Centre for Ocean-Atmospheric Science and Technology (ACOAST).

Kushagra Rajendra, Ph.D
Head of Department,
Amity School of Earth and
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Amity University Haryana-122413

Amity School of Earth and Environmental Science

BOARD OF STUDIES

Date: 21/07/2017.

Agenda: Credit Structure change of M.Sc. Environmental Science and Management from 130 Credits to 100 Credits

Introduction of PhD Course work on Meteorology and Geospatial Technology

BOS, ASEES

Sr. No.	Name		Sign
1	Dr. R.K. Thakur		
2	Prof. I.S. Thakur		
3	Prof.(Dr.) P.C.S. Devara		
4	Prof.(Dr.) C.P. Kaushik		—
5	Dr. Kushagra Rajendra		
6	Dr. Shaili S Nigam		
7	Dr. Deepika Pandey		

AST 5002

Meteorology & Geospatial Technology

Course Code: **Credits: 04**

Module – I

Surface Energy Balance: Earth Sun relationship, Causes of seasons, Seasonal and latitudinal variation of insolation; weather, climate, elements of weather, climate controls, Semi-diurnal variation of pressure, Diurnal variation of temperature, Pressure and wind belts, Distribution of pressure and temperature over the surface of the earth, Stefan's law, emissivity. Greenhouse effect. Surface energy balance.

Module – II

Atmospheric boundary layer: Mean Boundary Layer characteristics - Definition, depth and structure, turbulent transport, Taylor's hypothesis; Mathematical and Conceptual tools - Turbulence spectrum, spectral gap, kinematic flux, eddy flux, basic governing equations to turbulent flow; Measuring climate data - climate stations, measurement accuracy, measuring temperature, humidity, wind, rainfall, irradiance, evaporation, archiving, analyzing climate data.

Module – III

Geographic Information System: Definition, basic concepts, components; Data – spatial, attribute data; Feature classes – point, line, polygon; Map – scale, resolution, legend, detail, accuracy, coordinate system, projection; Data model – raster, vector, database management system (DBMS); Functions – conditional (what, where, what if), change detection, pattern recognition, resource management, planning and engineering; Advantages – advantage over traditional map, other mapping software, conventional DBMS, advantage of analysis, modelling, presentation, decision making.

Module – IV

Remote Sensing: Historical perspective, scientific perspective; Principles – Electromagnetic spectrum (EMS), Interaction of electromagnetic radiation with atmosphere and terrain elements (reflection, refraction, scattering, absorption, transmission, radiation); sensors and platforms – geosynchronous and sun-synchronous orbits, active and passive sensors; resolution (spatial, spectral, temporal, radiometric); Indian Remote Sensing endeavours.

Prabhu Prasad Das
(Dr. P.P. DAS)

(Ms. Sarika Jain)

Kushagra.
(Dr. Kushagra Rajendra)