

AG-304 Sequence Stratigraphy Credit Hours 2+1

Prerequisite: AG-107

Learning Outcomes

The student will be able to learn about

- Paragenetic sequence
- U-static Sea level changes
- Hierarchic of sequence stratigraphy

Course Contents

Introduction, history, concept and significance of sequence stratigraphy, Seismic reflections and facies. Sea level changes, their causes and effects. Accommodation, eustatic sea level curve. Hierarchy of sequence stratigraphy elements. Types of sequences and systems. Tracts.

Lab.

Interpretation of seismic reflections, Surface and seismic facies and identification of sequences.

TEACHING – LEARNING STRATEGIES

- Lecture based examination
- Presentation/seminars
- Class discussion
- Quizzes

ASSIGNMENTS – TYPE AND NUMBER WITH CALENDAR

It is continuous assessment. The weightage of Assignments will be 25% before and after midterm assessment. It includes:

- classroom participation,
- attendance, assignments and presentation,
- homework
- attitude and behavior,
- hands-on-activities,
- short tests, quizzes etc.

ASSESSMENT AND EXAMINATIONS

Sr. No.	Elements	Weightage	Details
1.	Mid Term Assessment	35%	It takes place at the mid-point of the semester
2.	Formative Assessment	25%	It is continuous assessment. It includes: classroom participation, attendance, assignments and presentation, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.
3.	Final Assessment	40%	It takes place at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

Books Recommended

1. Silici-clastic Sequence Stratigraphy in well Logs, Cores and Outcrops by Van Wagoner, J.C, et.al, 1990, AAPG Meth Expl. Ser. No. 7.
2. Sea level changes an integrated approach by Wilgus, B.S. et.al., 1988, SEPM.
3. Seismic Stratigraphy: Application to H-Carbon Exploration by Payton, C.W., 1977, AAPG Mem. 26.
4. Sequence Stratigraphy and Facies Association by Posamentier, H.W., et. Al., 1993, Blackwell.
5. Sequence stratigraphy by Emery, D., & Myers, K.J., 1996, Oxford, Blackwell.