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UNIVERSIDAD DE BUENOS AIRES

FACULTAD DE CIENCIAS EXACTAS Y NATURALES

DEPARTAMENTO: CIENCIAS GEOLOGICAS

ASIGNATURA: ANALISIS DE CUENCAS SEDIMENTARIAS

CARRERA/S: LICENCIATURA Y/O DOCTORADO EN CIENCIAS GEOLOGICAS

----- ORIENTACION-----

----- PLAN-----

CARACTER: OPTATIVA

DURACION DE LA MATERIA: CUATRIMESTRAL

HORAS DE CLASES: a) Teóricas 60 Hs. b) Problemas 128 Hs.

c) Laboratorio - Hs. d) Seminarios -- c) Totales 188

ASIGNATURAS CORRELATIVAS: GEOLOGIA HISTORICA Y REGIONAL

PROGRAMA

- 1.- Ambientes deposicionales. Su importancia estratigráfica. Factores que constituyen un ambiente. Ambientes complejos. Relación entre distintos ambientes. Clasificación de los mismos. Continentales, transicionales y marinos. Diversos tipos.
- 2.- Factores a considerar para la reconstrucción de los paleoambientes: litologías, asociaciones litológicas, estructuras primarias y datos paleoecológicos. Estructuras sedimentarias, estructuras de corrientes, estructuras de origen biológico y de origen químico. Medición e interpretación de cada una de ellas. Ejemplos argentinos.
- 3.- Diferentes ambientes deposicionales
 - 3.1- Facies eólicas: Generalidades. Dunas. Tipos de dunas: litorales, de ríos y de desierto. Formas de las dunas: transversales, longitudinales y complejas. Estructuras diagnósticas de dunas: capas frontales, superficie de truncamiento, marcas ondulantes eólicas. Distribución de los tamaños de grano y su clasificación. Criterios para el reconocimiento de arenas de dunas y médanos. Ejemplos argentinos.
 - 3.2- Facies de abanicos: Generalidades. Facies continentales: ambientes y ciclos deposicionales; espesor, texturas y estructuras sedimentarias. Geometría de los depósitos. Criterios para el reconocimiento de los abanicos continentales. Ejemplos argentinos.

Facies submarinas: turbiditas, su origen. Modelo de facies de una turbidita. Variaciones verticales y laterales. Estructuras sedimentarias. Régimen del flujo. Criterios para el reconocimiento de turbiditas. Ejemplos argentinos.

 - 3.3- Facies de planicies fluviales: Generalidades. Aspectos morfológicos de los ríos: meandrosos, anastomosados. Otras particularidades morfológicas. Análisis de la planicie de inundación y sus sedimentos: depósitos de canal y de la llanura. Concepto del régimen de flujo. Criterios para el reconocimiento de los depósitos de planicie fluvial. Ejemplos argentinos.


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- 3.4 - Facies deltaicas: Generalidades. Ambiente deltaico y sus subfacies: subfacies de la planicie deltaica, subfacies frontales y subfacies de fondo (prodelta). Complejo deltaico del Mississippi: su historia geológica; ambientes y subfacies diferenciadas en el mismo. Complejo deltaico del Róldano: evolución del complejo; subfacies que lo integran. Ejemplos de deltas fósiles y deltas actuales. Criterios para el reconocimiento de sedimentos deltaicos. Ejemplos argentinos.
- 3.5 - Facies de marea: Generalidades. Facies de planicies de marea y de los canales. Estructuras sedimentarias. Sistemas de corrientes y análisis de paleocorrientes. Facies de marea del Mar de Wadden (Holanda). Facies de marea en la costa de Nueva Inglaterra (USA). Criterios para el reconocimiento de facies de marea. Ejemplos argentinos.
- 3.6 - Arenas de playa: Generalidades. Estructuras sedimentarias. Texturas, estructuras y distribución granulométrica. Arenas de playa de la Costa de California. Criterios para el reconocimiento de arenas de playa. Ejemplos argentinos.
- 3.7 - Facies litorales: Generalidades. Tipos de arenas litorales. Barreras. Cordones litorales regresivos. Asociaciones litológicas y estructuras sedimentarias de las arenas litorales. Sedimentos transgresivos. Geometría de los depósitos. Arenas marinas. Costa noroeste del Golfo de México. Criterios para la diagnosis de facies litorales. Ejemplos argentinos.
- 3.8 - Facies lagunares: Generalidades. Identificación de las subfacies. Asociaciones litológicas y estructuras sedimentarias en cada una de ellas. Facies lagunares en Piceance Creek Basin (Colorado-U.S.A.). Criterios para la diagnosis de facies lagunares. Ejemplos argentinos.
- 3.9 - Facies carbonáticas: Generalidades. Facies carbonáticas continentales, de transición y marinas. Asociaciones litológicas, estructuras sedimentarias y caracteres bioestratigráficos de cada una de ellas. Facies definidas en la Formación El Abra (México). Criterios para la diagnosis de las facies carbonáticas. Ejemplo de la F. Chachao (Sur de Mendoza).

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