

2do. cuatrimestre del 89.

18

UNIVERSIDAD DE BUENOS AIRES

FACULTAD DE CIENCIAS EXACTAS Y NATURALES

DEPARTAMENTO: Computación.....

ASIGNATURA:

CARRERA/S:.. Lic.en.Ciencias.de.la.Computación.(18). (87)

.....

CARACTER: optativa.....(indicar si es obligatoria u optativa)

PUNTAJE:..3. (tres).....(en caso de ser optativa)

DURACION DE LA MATERIA: cuatrimestral.....(indicar si es cuatrimestral o anual).

HORAS DE CLASE: a) TEORICAS...3.. HS. b) PROBLEMAS HS.
c) LABORATORIO... HS. d) SEMINARIOS..... HS.
e) TOTALES....3.. HS.

ASIGNATURAS

CORRELATIVAS:..Inteligencia.Artificial.....

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PROGRAMA:

Unidad 1: INTRODUCCION AL APRENDIZAJE AUTOMATICO.

Introducción, definición, conceptos generales. Orientaciones de las investigaciones. Clasificaciones de los modelos de aprendizaje. Aprendizaje Humano vs Aprendizaje Automático. Reseña Histórica.

Unidad 2: INDUCCION DE ARBOLES DE DECISION.

Introducción. El proceso de Inducción . Algoritmo ID3 (Quinlan). Modelo de confianza para grandes universos. Modificación de ID3 para grandes conjuntos de entrenamientos . Prunning y Algoritmo C4. Control de ruido.

Unidad 3: TEORIA Y METODOLOGIA DEL APRENDIZAJE INDUCTIVO.

Conceptos generales. Aprendizaje como Búsqueda Heurística . Un paradigma general. Adquisición de Conceptos vs Generalizaciones Descriptivas. Completitud y consistencia. Generalización, reglas. Conocimiento de dominio. Espacio de versiones. Algoritmo STAR, INDUCE (Dietterich). Distintas Heurísticas de Búsqueda.

Unidad 4: APRENDIZAJE POR OBSERVACION.

Conceptos generales. Generalizaciones Descriptivas. Aprendizaje no supervisado . Agrupamiento conceptual.

Unidad 5: APRENDIZAJE POR EXPERIMENTACION.

Aprender por la práctica .Sistema Lex. Sistemas Expertos que aprenden con la experiencia.

Unidad 6: APRENDIZAJE POR DESCUBRIMIENTO.

Conceptos generales. Aprendizaje de múltiple conceptos. Manejo conjunto de diversos formalismos de representación. Sistema AM (Lehat).

Unidad 7: APRENDIZAJE POR ANALOGIA.

Conceptos generales. Detección de similitudes .Detección de información relevante.Organización de la bases de conocimientos.Algoritmos de búsqueda, heurísticas.

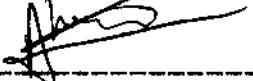
Unidad 8: APRENDIZAJE POR BUSQUEDA DE EXPLICACIONES.

Uso de teorías sobre el dominio . Generalización Basada en Explicaciones. Modelo EBL.

Unidad 9: OTROS MODELOS Y CONCLUSIONES.

Otros modelos de aprendizaje. Formalismos de aprendizaje. Aplicaciones en Programación Automática. Discusiones y conclusiones.

Fecha: 15 de setiembre de 1989.



A. Kvitra
Prof. Responsable



A. Gacia
Autoridad del Depto.

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Referencias Generales

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ML-II Varios, Machine Learning: An Intelligence Artificial Approach Vol II. M, C, M Editors. Tioga Press, Palo Alto, Ca'84

CACM Communications of ACM

JACM Journal of ACM

ACMCS ACM Computing Surveys

PIJCAI-84 Proceedings of International Artificial Intelligence

AIJ Artificial Intelligence Journal

AIMA AL Magazine

DSS Decision Support Systems

IJMMS-84 International Journal of Man-Machine Studies

CSJ Cognitive Science Journal

AI-14-89 Artificial Intelligence

MLJ Machine Learning Journal

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Unidad 2: Inducción de Árboles de decisión

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