

Knowledge, Information and Data (KID) Track

Track Description:

This track focuses on the broad field that includes data, information, and knowledge. Sub-areas include: artificial intelligence, classification, clustering, database management, data mining, digital libraries, electronic publishing, expert systems, hypermedia, hypertext, information processing, information retrieval, knowledge management, machine learning, multimedia systems, search, semantic web, string processing, text mining and processing, XML, WWW, Web 2.0. Related areas include bioinformatics, library and information science, and multimedia development.

Why take this Track?

This track connects with the very broad field of information processing or information technology. Many activities involve work with search engines or Web services or database management systems. Since these capabilities are a key part of myriad activities, those trained in this field can work in most any application domain or in any corporation or institution.

Associated Faculty:

Dr. Ing-Ray Chen
Dr. Ed Fox

Dr. T.M. Murali
Dr. Naren Ramakrishnan

Junior Year

CS 3114	Data Structures and Algorithms	(3)___	CS 3304	Comparative Languages	(3)___
CS 2506	Intro to Computer Organization II	(3)___	CS 3214	Computer Systems	(3)___
CS 3414	Numerical Methods	(3)___	CS 3604	Professionalism in Computing	(3)___
Comm 2004	Public Speaking	(3)___	Stat 4705	Statistics for Engineers or	(3)___
Math 3134	Applied Combinatorics	(3)___	Stat 4714	Probability & Statistics for EE	(3)___
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Total		15	Total		15

Senior Year

CS 41X4	Theory Course	(3)___	CS 4944	Senior Seminar	(1)___
CS 4604	Intro Database Mgt Systems	(3)___	CS 4244	Internet Software Development	(3)___
CS 4804	Introduction to AI	(3)___	CS 4XXX	Data Mining	(3)___
Engl 3764	Technical Writing	(3)___	CLE Elective		(3)___
CLE Elective		(3)___	CS 4624	Multimedia/Hypertext	(3)___
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Total		15	Total		13

The following electives are recommended (but not required) for this track:

- Area 2:
 - Phil 1204, Knowledge and Reality
 - Phil 1304, Morality and Justice
- Area 3:
 - Comm 1014, Introduction to Communication Studies
- Area 7:
 - Phil 2304, Global Ethics (also in area 2)
- Minoring in Philosophy, or taking free electives in that department, might be appealing. If so, assuming prerequisites are satisfied, the following might be useful:
 - Phil 1504, Language and Logic
 - Phil 3505-6, Modern Logic and Its Development
 - Phil 4204, Philosophy of Mind (3 hours of philosophy required as prerequisite)
 - Phil 4224, Epistemology (3 hours of philosophy required as prerequisite)
- Taking free electives in Psychology might be appealing. If so, assuming prerequisites are satisfied, the following might be useful:
 - Psyc 2044: Psychology of Learning (Pre: Psyc 2004)
 - Psyc 2064: Nervous Systems and Behavior (Pre: Psyc 2004)