



## Course Weekly Outline

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<b>Title</b>	Advanced databases				
<b>Course Coordinator</b>					
<b>Course Objective</b>	Data mining, Distributed database, data warehouse				
<b>Course Description</b>	<p><b>Distributed database</b> is, in brief, an integrated database which is built on top of a computer network rather than on a single computer.</p> <p><b>Data Mining</b> is the normal extraction of implicit, previously unknown and potentially useful information from data in databases.</p> <p><b>data warehouse</b> is a relational database that is designed for query and analysis rather than for transaction processing</p>				
<b>Textbook</b>	<p>1- Database system concept, fifth edition, Abraham Silberschatz and Merry F.Koth, 2006.</p> <p>2- Distributed DB, Stefane Ceri, 2002.</p> <p>3- Data mining Concepts and Technique, Jiawei Han, Micheline, 2001.</p>				
<b>References</b>					
<b>Course Assessment</b>	Term Tests	Laboratory	Quizzes	Project	Final Exam
	25%	20%	5%	-----	50%
<b>General Notes</b>					



## Course weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	2014/9	Structure of Distributed database, Feature of DDB versus Centralized DB	Introduction about SQL lang	
2	2014/9	Advantage and disadvantage of DDB Distributed database management system	Creating table	
3	2014/10	Design of Distributed database, DDB architecture	Insert statements	
4	2014/10	, designing the conceptual scheme, designing the physical DB	Update statements	
5	2014/10	Designing fragmentation, designing the allocation of fragments.	Update table	
6	2014/10	Data distribution: processing locating,	Creating user	
7	2014/11	workload distribution, storage costs and availability.	Select statements	
8	2014/11	Top-down and Bottom –up approaches for design of data distribution, horizontal, Vertical	Select statement	
9	2014/11	and mixed fragmentation. Data Replication	Where statement	
10	2014/11	Recovery in distributed system	Join statement	
11	2014/12	Concurrency Control	Select data from multiples user	
12	2014/12	, Time stamping	Functions	
13	2015/12	, system structure	String function	
14	2015/12	allocation	Numerical function	
15	2015/1	Availability and reliability of DDB,	Aggregation function	
<b>Half-year Break</b>				
17	2015/2		Group by statement	

		characterization and discrimination Association Analysis, classification and predication Distributed query processing: simple join processing		
<b>18</b>	<b>2015/2</b>	, join strategies that exploit parallelism, semjoin strategy.	<b>Having</b>	
<b>19</b>	<b>2015/3</b>	commint protocols Deadlock Handling . Data mining functionalities, concept,	<b>Developer</b>	
<b>20</b>	<b>2015/3</b>	cluster analysis, outlier analysis, class description measure of costs and benefits	<b>Create alert</b>	
<b>21</b>	<b>2015/3</b>	evolution analysis, classification according to the kind of technique utilities	<b>Create LOVs</b>	
<b>22</b>	<b>2015/3</b>	classification according to the application adapted	<b>Built complete project of DB</b>	
<b>23</b>	<b>2015/4</b>	Data warehouse and OLAP technology for data mining	<b>Built complete project of DB</b>	
<b>24</b>	<b>2015/4</b>	The construction of data warehouse, data warehouse architectures	<b>Built complete project of DB</b>	
<b>25</b>	<b>2015/4</b>	,differences between operational DB and data warehouse	<b>Built complete project of DB</b>	
<b>26</b>	<b>2015/4</b>	separate data warehouse, multidimensional data model	<b>Built complete project of DB</b>	
<b>27</b>	<b>2015/5</b>	The design of data warehouse :top- down view	<b>Different projects from students</b>	
<b>28</b>	<b>2015/5</b>	the data source view, the business query view,	<b>Different projects from students</b>	
<b>29</b>	<b>2015/5</b>	the process of data warehouse design	<b>Different projects from students</b>	
<b>30</b>	<b>2015/5</b>	Data preprocessing , data cleaning,	<b>Different projects from students</b>	
<b>31</b>	<b>2015/6</b>	data integration and transformation, data reduction	<b>Different projects from students</b>	

**Instructor Signature:**

**Dean Signature:**