

# CS5200: Introduction to Database Management Systems

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## Class Info

Term	2018 Summer
Instructor	Bruce Chhay
Time	Thursdays, 6:30-9:30PM
Location	401 Terry Ave N. Room 143, Pearl

## Course Description

[From the course catalog.](#)

## Contact Info

Instructor:  
Bruce Chhay  
b.chhay@neu.edu  
bruce.chhay@gmail.com  
425-233-5271  
Appointments available before class, after class, and by request.

## Teaching Assistants

Prakash Somasundaram somasundaram.p@husky.neu.edu  
Vinay Singh singh.vina@husky.neu.edu  
Date/Time TBD  
Location: TBD

## Google Group

Email: cs5200-2018summer@googlegroups.com  
Group: <https://groups.google.com/forum/#!forum/cs5200-2018summer/>  
Add your @gmail.com account (@husky.neu.edu does not work because it's a domain account).

## Blackboard

<https://northeastern.blackboard.com/>

## Wordpress

[https://www.northeastern.edu/mscs\\_online/](https://www.northeastern.edu/mscs_online/)

## Text Book

None.

## Software

[MySQL Community Server](#)

[MySQL Workbench Community Edition](#)

[Eclipse IDE for Java EE Developers](#) (you can try the Eclipse Installer, or just install the “Eclipse IDE for Java EE Developers” package; note that you need to install the Java SE Development Kit to run Eclipse, [Java SE JDK](#))

[CloverETL Community Edition](#)

## Expectations

See [Office of Student Conduct and Conflict Resolution](#).

## Grading

25% Midterm

25% Assignments

50% Project

Late submissions are subject to 10% penalty per day

## Course Schedule

[Academic Calendar](#)

Week	Module	Assignment
1. 05/10	M1. Relational Databases <ul style="list-style-type: none"><li>• Data modeling.</li><li>• UML diagrams.</li></ul> Slide deck: <a href="http://goo.gl/CDWTvr">http://goo.gl/CDWTvr</a> .	HW1 (UML) due 05/24: <a href="http://goo.gl/B5Ue0Q">http://goo.gl/B5Ue0Q</a> .
2. 05/17	M2. Design a Relational Model <ul style="list-style-type: none"><li>• Functional dependencies.</li><li>• Normal forms.</li></ul> Slide deck:	<a href="#">PM1</a> (Definition) due 05/31.
3. 05/24	M3. Implement a Relational Model	HW2 (DB Design and

	<ul style="list-style-type: none"> <li>• Create tables and insert data.</li> <li>• Enforce data integrity.</li> </ul> Slide deck:	Implementation) due 06/07:
4. 05/31	M4. Interact with Data <ul style="list-style-type: none"> <li>• Relational algebra.</li> <li>• Fundamental SQL.</li> </ul> Slide deck:	<a href="#">PM2</a> (Relational Model and Data) due 06/14.  Demo: PM1
5. 06/07	M5. Advanced SQL <ul style="list-style-type: none"> <li>• Full SELECT statements.</li> <li>• Functions and procedures.</li> </ul> Slide deck:	HW3 (SQL) due 06/14 ( <b>before next class</b> ):  <a href="#">PM3</a> (Business Insights) due 06/28.
6. 06/14	Midterm review.  HW3 (SQL) recap	Demo: PM2
7. 06/21	6:30-9:30PM Midterm exam.	Midterm exam.
8. 06/28	M7. Application Development <ul style="list-style-type: none"> <li>• JDBC</li> <li>• JSP</li> </ul> Slide deck:	HW 4 (JDBC) due 07/12:  <a href="#">PM4</a> (Hello World) due 07/19.  Demo: PM3
9. 07/05	M6. Transformation Languages <ul style="list-style-type: none"> <li>• XSLT, XPath.</li> <li>• XQuery.</li> </ul> Slide deck:	HW5 (XSLT) due 07/19:
10. 07/12	M8. Data Warehousing <ul style="list-style-type: none"> <li>• ETLs.</li> <li>• Analysis and Reporting.</li> </ul> Slide deck:	<a href="#">PM5</a> (Data Warehousing) due 07/26.
11. 07/19	M9. Database Operation <ul style="list-style-type: none"> <li>• Transactions</li> <li>• Storage &amp; Indexing</li> </ul> Slide deck:	Demo: PM4
13. 07/26	M10. Industry Trends <ul style="list-style-type: none"> <li>• NoSQL, NewSQL.</li> <li>• Big Data, Machine Learning.</li> </ul> Slide deck:	<a href="#">PM6</a> (Conclusion) due 08/01 (one day before class).  Demo: PM5

14. 08/02	Project presentations Schedule: <a href="http://goo.gl/ENQiuN">http://goo.gl/ENQiuN</a> .	<a href="#">Project Presentations.</a>
15. 08/09	(Optional: presentation overflow)	
16. 08/21	Grades available.	