

# Midterm Review

## Lesson #midterm

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## Agenda

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Given one lecture hour per week, and the midterm week this term, I am scaling back the planned material for the course. I would rather have you "get" the basics well, and be prepared to tackle more advanced topics, rather than having a smattering of everything. This will not change the assignments; it will probably result in one fewer lab. The Feb 17th lecture will be review of the material so far.

The final exam from last term has been posted in the "content" area on D2L, as an example for you.

1. [Material Review](#)
2. [Exam Essentials](#)

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## MATERIAL REVIEW

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We have had six lectures so far, each on its own topic. What I have found effective as an exam preparation aid is to give you a mental organizer for the important material.

For any given topic, the organizer consists of a practical explanation/definition of the topic, followed by the key concepts and then the key techniques relevant to that topic.

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## MVC Frameworks

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*Structured webapps*

### Concepts:

- MVC separation
- Design patterns (front controller, adapter, intercepting, active record?)
- Autoloader
- Routing

### Techniques:

- Classes
- Helpers
- Htaccess, virtual hosting
- Cross-platform!

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# CodeIgniter Framework

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*One PHP MVC framework*

## Concepts:

- Lightweight
- Controllers, models, views
- Libraries, helpers
- Core, hooks, routes

## Techniques:

- Discipline
- Sessions, Authentication
- REST, XML-RPC
- View templates

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# CodeIgniter Controllers

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*HTTP Request handlers*

## Concepts:

- Usecase handler
- Utility
- Service

## Techniques:

- Routing
- Base controller
- Use other CI components

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# CodeIgniter Models

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*Data resource wrappers*

## Concepts:

- Data resource encapsulation
- Patterned after Active Record?)
- Assumes RDB

## Techniques:

- Base model with CRUD
- Usecase-specific methods to retrieve data
- Entity models??

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# CodeIgniter Views

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*Presentation pieces*

## Concepts:

- HTML output
- Template parser, with substitutions

## Techniques:

- View fragments
- Parser templates
- No PHP

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# CodeIgniter Support Components

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*Multi-framework integration*

## Concepts:

- Frameworks: code, CSS, JS
- Libraries, helpers

## Techniques:

- Bootstrap, jQuery
- Field templating
- Framework components
- Packages
- Pulling them together

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## EXAM ESSENTIALS

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- Date? Tues Feb 24
- When? 15:30 – 16:20
- Where? SW5-1840
- How Long? One hour
- How long minimum? 30 minutes
- Aids: None

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## What Will the Exam Cover?

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- MVC frameworks ... 15%
- CodeIgniter ... 15%
- Controllers ... 20%
- Models ... 15%
- Views ... 20%
- Libraries & helpers ... 10%

No, the above do not add up to 100%. That is on purpose, to give me a lot of "wiggle room" coming up with questions.

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## What Format Will the Exam Have?

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- Multiple choice @1 ... 40-60
- Completion @2 ... 0-5
- Short answer @ 3 ... 0-5
- 60 marks in total

Doing the math, a 15% emphasis on MVC frameworks translates to 9 out of 60 marks. This could be 9 multiple choice, or 3 short answer, or anything in between.

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# Congratulations!

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You have completed lesson #midterm: Midterm Review

If you would take a minute to [provide some feedback](#), we would appreciate it!

The next activity in sequence is: [tutorial05](#) Working With Libraries and Helpers

You can use your browser's back button to return to the page you were on before starting this activity, or you can jump directly to the course [homepage](#), [organizer](#), or [reference](#) page.