CMSC389N Summer 2015 (Final Exam Information)

UNIVERSITY OF
MARYLAND

General Information

- **Date:** Fri, Jul 10
- **Time/Location:** Your exam will take place in lecture.
- **Duration:** 120 minutes
- Closed-book, Closed-notebooks, No Computers/Calculators.
- Use a pencil/mechanical pencil **(no pen)** to answer the exam.
- Please take a look at the general exam rules available at **Exam Rules**.
- Information about taking exams **Taking Exams**.
- **Posting any information in Piazza about the exam after taking it is considered an academic integrity violation.**

Exam Structure

- **Short answer questions:** This includes for example, multiple choice, true/false and fill-in-the-blank type questions.
- **Code analysis questions:** We will give a short segment of code and you may be asked to identify syntax and logical errors, generate code output, etc.
- **Code Writing:** Write a program/code snippets to solve a given problem. You should be prepared to give a complete program, but we may also ask you to provide just a single function or a code fragment.

Topics

The exam will include all the material covered in lecture and projects including the following topics:

- Only the following HTML
    - How to define tables.
    - How to define ordered and unordered lists.
    - How to define forms using text fields, hidden fields and submit buttons. You don't need to know any other form elements (e.g., radio buttons, etc.)
    - Other tags you should be familiar with:
        -
        -
        -
        - <h1></h1>
        - <div></div>
        -
        - <p></p>
        - <pre></pre>
        - <img>
        - <a>
        - <img>
- Only the following CSS properties
    - color
    - font-size
- CSS Selectors
    - id selectors
    - class selectors
    - type selectors
- SQL
    - how to create a table of strings and integers
    - how to insert a record in a table
    - how to delete a record
    - how to display the table
- Server Side Includes
- PHP Language
    - echo
    - print
    - variables
    - superglobals
    - expressions

- casting
- constants
- conditional statements
- iteration statements
- functions
- default arguments
- Arrays
- foreach
- array_keys(), count(), array_values(), functions
- string functions: only explode() and trim()
- include functions: only require_once
- heredoc
- self-referencing scripts
- header function
- type conversions
- processing information submitted via forms using PHP
- Reading/writing from files
- Cookies
- Sessions
- array_map
- rand()
- htmlspecialchars, htmlentities
- Object-Oriented PHP
  - defining classes and interfaces
  - Constructor
  - Using $this
  - __toString
  - parent::
  - static fields and methods
  - public, private, protected
  - const
  - ::self
  - get_class
- JavaScript
  - JavaScript data types
  - Expressions
  - prompt
  - alert
  - console
  - Iteration constructs(while, for in, etc.)
  - Functions
  - Form Validation Using JavaScript
  - DOM
  - document.getElementById
  - getAttribute, setAttribute
  - innerHTML
  - charAt
  - JavaScript object definition
  - Object properties
  - Objects as associative arrays
  - strict mode
  - Prototypes, execution context, constructor/prototype/default pattern
  - Private variables, private functions, sealing/freezing objects
  - Error
  - JSON
  - AJAX
- Security information provided in slides
- localstorage

The exam will **NOT** cover the following topics:

- XAMPP configuration, jQuery Mobile, PHP date functions, DNS, serialization, PHP file_get_contents
- You don't need to know the JavaScript code used to identify which element has been selected in checkboxes, drop-down lists, scrollable lists, radio buttons, textarea.
- Regular expressions, iframe, video tag, audio tag, canvas tag, svg tag, geolocation, jQuery, Node.js.