

# Content Management Systems (CMS)

*Full-time engineering studies*

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1. CMS course can be divided into two main blocks:
  - a. Getting to know the chosen CMS (*Content Management System*) and presenting its possibilities in action. Students will be divided into groups (of around 4 people, every person has to actively participate in the final presentation), will choose a specific CMS, show its features (e.g. in Power Point) and present it so it covers, among others, below information:
    - User registration,
    - Adding content,
    - Browsing content,
    - Searching for information,
    - Editing content,
    - Editing users' data,
    - Working with files repository (it is not media library) for end user (description, categories, uploading, downloading, permissions, etc.), ,
    - Navigation (menu system)
    - Change of theme,
    - Adding new modules.
  - b. Designing and implementing an Internet portal of any type, e.g. corporate, online shop, service, etc.
    - Course group is divided into teams (around 4 people each), e.g. A, B, C, D. Each group is a customer of their twin group and vice versa, e.g. A – B, B – A, C – D, D – C (or: A – B, B – C, C - A). The team's work is coordinated by the team leader.
    - Teams do their best to create buyer-seller relationship; it means that contacts and decisions are documented, each milestone requires sign off, etc.
    - Creative process can be done in a cascade model, using an agile methodology (such as XP), iterative model, etc.
    - Implementation can be based on modifying an existing CMS (including open-source) or implementing it in any technology. Implementations



realized without development (even a module of existing CMS) will not receive full score.

- Documented milestones will be cyclically reported and evaluated during classes (see point 2). Depending on the stage, the report can include requirements (non) functional, design, elements of implementation, etc. Reporting will be done with at least presentation (e.g. in Power Point; each person from the team presents part of the work that was done) and some extra materials can be added.
- Evaluation will be done based on, among others: quality of reports/progress, presentation method, chosen methodology, workload required for the implementation.
- Implemented portal should be as close as possible to the “commercial” version (functionality, usability, design, (sample) content, etc.). That is why it is better to completely finish a narrow functionality, rather than submit functionality of the bigger scope, which is not finished.

## 2. Schedule

Week no.	Lecture	Classes
1	Introduction to Content Management	Organizational matters. <ul style="list-style-type: none"> <li>• Establishing teams for the sake of: <ul style="list-style-type: none"> <li>○ classes no. 2, 3 (live presentation of the CMS),</li> <li>○ classes no. 4 – 12 (creating portal).</li> </ul> </li> <li>• Choosing CMS for presentation (by each team).</li> <li>• Presenting initial version of the requirements for the implementing team.</li> </ul>
2	Content Management Systems – introduction	<b>Presenting CMSs prepared by teams.</b>
3	Content Management Systems – required functionality	Continuing class no. 2.
4	Content Management Systems – discussing popular solutions	Working on the portal in teams.
5	Content Management Systems – discussing popular solutions part 2	<b>Reporting progress of team work.</b> Discussing: <ul style="list-style-type: none"> <li>• Project goal („idea”),</li> <li>• Used methodology,</li> <li>• Agenda, tasks allocation,</li> </ul>



		<ul style="list-style-type: none"><li>• Functional requirements,</li><li>• Applied technology,</li><li>• Progress.</li></ul>
6	Usability of Content Management Systems	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
7	<b>Test no. 1</b>	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
8	Workflows	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
9	Corporate Portals	<b>Reports on the progress of team work.</b>
10	Searching Content	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
11	Search Engine vs. Content Management	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
12	Search Engine vs. Content Management part 2	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
13	<b>Test no. 2</b>	<ul style="list-style-type: none"><li>• Working on the portal in teams.</li><li>• Brief information about weekly progress.</li></ul>
14	Search Engine vs. Content Management part 3	<b>Final Reports</b> (including presentation of the implementation) on the progress of team work: <ul style="list-style-type: none"><li>• Pro, cons,</li><li>• Creators of particular parts/modules,</li><li>• Scheduling</li><li>• Summary</li><li>• Demonstration of the system.</li></ul>
15	Content Management in Web 2.0/Web 3.0	All the matters related to grading the classes.



### 3. Classes grading

Final grade from classes is given based on the sum of points (max. 100) received from:

- a. Tests during lectures (2 x 15 points),
- b. Presenting how CMS works (classes no. 2, 3) – max 10 points,
- c. Reports (2 x 15 points) and final implementation (30 points).

The sum is taken into account – it is not required to get a pass mark in each part.

### 4. Exam

The exam consists of a few descriptive questions.

The sum of points is taken into account..

Students with the grade of at least 4.5 (achieved in the first attempt, no retakes) are eligible for exemptions from the exam.

Students who prepare and present their own topic (previously accepted by the tutor and related to content management) during the lecture will get max. **5 extra points towards their classes.**

### 5. Materials

- a. Digital version of lectures: <http://www.mtrzaska.com/cms-en>;
- b. Comparison of different CMSs: <http://www.cmsmatrix.org/>;
- c. Demo version of various online CMSs: <http://www.opensourcecms.com/>;
- d. Portal about CMS: <http://opensourcecms.com/>;
- e. Research on popularity of web technologies: <http://w3techs.com/>,  
<http://trends.builtwith.com/cms>
- f. Software integrating WWW server (among others PHP) and database (e.g. MySQL) -  
The following tools can be useful to present CMS:
  - XAMPP: <http://www.apachefriends.org/en/xampp.html>
  - EasyPHP: <http://www.easyphp.org/>
  - Web Matrix (not just MS technologies): <http://www.asp.net/web-pages>
- g. Recommended literature:
  - Steve Krug. Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd Edition). ISBN: 978-0321965516
  - Bob Boiko: Content Management Bible. Wiley; 2 edition (November 26, 2004). ISBN-13: 978-0764573712.
  - Kristina Halvorson: Content Strategy for the Web. New Riders Press; 1 edition (August 22, 2009). ISBN-13: 978-0321620064.
  - Russell Nakano: Web content management: a collaborative approach. Addison-Wesley Professional (October 5, 2001). SBN-13: 978-0201657821.



- Eric Enge, Stephan Spencer, Rand Fishkin, Jessie C Stricchiola: The Art of SEO: Mastering Search Engine Optimization (Theory in Practice). O'Reilly Media. (October 21, 2009). ISBN-13: 978-0596518868.

Should you have any questions please do not hesitate to contact me:

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