

Soft Computing

## Administrativa

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Soft Computing

## Administrative (1)

Course Name:  
Soft Computing  
Course Number:  
graduate CSCI 6962 section 01  
Credit-hours:  
3  
Schedule:  
Tuesday 6pm-9pm  
Lecture Room:  
Ricketts 212

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Soft Computing

## Administrativa (2)

Course web site:  
<http://www.cs.rpi.edu/courses/fall01/soft-computing>  
Instructor Names:  
Kai Goebel  
Bill Cheetham  
Instructor Email:  
goebel@cs.rpi.edu  
cheetham@cs.rpi.edu  
(\*\*\* Preferred and fastest communication medium \*\*\*)  
Instructor Websites:  
[www.cs.rpi.edu/~goebel](http://www.cs.rpi.edu/~goebel)    [www.cs.rpi.edu/~cheetham](http://www.cs.rpi.edu/~cheetham)

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Soft Computing

## Administrativa (3)

Instructor Phone:  
Office Voice:  
Kai: (518) 387-4194  
Bill: (518) 387-5222  
Office Fax: (518) 387-6104  
Office hours:  
by appointment, before class on Tue 5pm  
(official office: Amos Eaton 218)  
T.A. Name:  
tba?

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Soft Computing

## Administrativa (4)

Grading:  
65% based on homework (mostly programming) assignments.  
30% based on research project.  
5% based on paper presentation  
Prerequisites:  
Official course prerequisite: None  
Implicit prerequisites:  
Proficiency in some High Level Language  
Access to matlab  
Past experience: need to be at least upper division undergrad to get the most out of this course

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Soft Computing

## Integrity Policy

See our web site (standard RPI policy)  
In particular,  
You may  
• discuss approaches to the homework assignments.  
You must not  
• give someone else the exact answer to a homework question.  
• show or copy the code or write-up.  
We will  
• find out – it's awkward for everybody  
• give you a failing grade  
• report cases of dishonesty.

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| 7 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <h2 style="text-align: center;">Administrativa (5)</h2> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><b>Textbooks:</b></p> <p><u>Required</u></p> <p>"Neuro-Fuzzy and Soft Computing"<br/>J.-S.R. Jang, C.-T. Sun, E. Mizutani;<br/>Prentice Hall, 1997, ISBN 0-13-261066-3</p> <p>"Applying Case-Based Reasoning",<br/>I. Watson;<br/>Morgan Kaufman Publishers, 1997, ISBN 1-55860-462-6</p> <p><u>Optional</u></p> <p>"Essential MATLAB for Scientists and Engineers"<br/>B. D. Hahn;<br/>John Wiley &amp; Sons, 1997, ISBN 0-470-25013 5</p> |
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| 8 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <h2 style="text-align: center;">Administrativa (6)</h2> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><b>Final Project:</b></p> <p>Imagine that you are writing a paper for a conference proceedings: you have a <u>maximum</u> of 8 pages</p> <p>* References and appendices not included in the page count.</p> <p>* point size 12 pt</p> |
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| 9 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <h2 style="text-align: center;">Administrativa, (7)</h2> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><b>Grade Assignment:</b></p> <p>Composite score using 7 weighted parameters.</p> <p><b>Parameters:</b></p> <ul style="list-style-type: none"> <li>Problem Originality/Description (domain, scope)</li> <li>Solution Originality (needs to contain some SC)</li> <li>Solution Difficulty (Non-trivial)</li> <li>Solution Structure (Architecture)</li> <li>Solution Correctness (Compare against specs. If it does not work, explain why)</li> <li>Overall Document Organization (legibility)</li> <li>Presentation</li> </ul> |
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| 10 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <h2 style="text-align: center;">Example Structure Final Project</h2> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <ul style="list-style-type: none"> <li>- Abstract (Executive Summary)</li> <li>- Problem description (what, why, specs, val. criteria)</li> <li>- Related work (who, how)</li> <li>- Solution Description (how does it work, assumptions, architecture)</li> <li>- Solution Analysis (of computer runs)</li> <li>- Post-mortem Remarks (how should it work?)</li> <li>- Conclusions and Poss. Future Work (what's next?)</li> <li>- References</li> <li>- Appendix: Source code and sample runs</li> </ul> |
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| 11 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <h2 style="text-align: center;">Project Proposal</h2> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p><b>Submit 1 page with:</b></p> <ul style="list-style-type: none"> <li>- Problem Description</li> <li>- Data Source</li> <li>- Assumptions</li> <li>- Proposed Solution</li> <li>- Proposed Validation</li> </ul> |
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| 12 | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Soft Computing</div> <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/> <p style="text-align: center;">last slide</p> |
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