## Basic Subject

<table>
<thead>
<tr>
<th>Course</th>
<th>planned implementation</th>
<th>Course-#</th>
<th>Hours</th>
<th>ECTS</th>
<th>Organizer</th>
<th>Course pre-registration?</th>
<th>Link to LSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental Approaches to Cognitive Science</td>
<td>online</td>
<td>CS8752.000</td>
<td>2 + 2</td>
<td>6</td>
<td>M. Ernst</td>
<td>no</td>
<td>Link to LSF</td>
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<tr>
<td>Fundamentals of Human-Machine Interaction</td>
<td>online</td>
<td>CS8153.001</td>
<td>2 + 2</td>
<td>6</td>
<td>H. Neumann with Ch. Javers</td>
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## Interdisciplinary Subject

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<th>ECTS</th>
<th>Organizer</th>
<th>Course pre-registration?</th>
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<tbody>
<tr>
<td>Cognitive Systems II</td>
<td>online</td>
<td>CS8901.002</td>
<td>3 + 1</td>
<td>6</td>
<td>Y. Kazakov</td>
<td>no</td>
<td>Link to LSF</td>
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<tr>
<td>Recent Developments in Cognitive Systems Research</td>
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<td>CS8755.000</td>
<td>2 + 1</td>
<td>6</td>
<td>H. Neumann, M. Ernst</td>
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## Special Subject

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<th>Organizer</th>
<th>Course pre-registration?</th>
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<tbody>
<tr>
<td>Perception</td>
<td>online</td>
<td>CS5490.000</td>
<td>3 + 1</td>
<td>6</td>
<td>H. Neumann</td>
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<tr>
<td>Data Visualization</td>
<td>online</td>
<td>CS8133.000</td>
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<td>T. Ropinski</td>
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<tr>
<td>Seminar Vision</td>
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<td>no</td>
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<tr>
<td>Specialization in Cognitive Psychology</td>
<td>online</td>
<td>PSY74739.006</td>
<td>2</td>
<td>4</td>
<td>A. Huckauf with W. Lau</td>
<td>yes</td>
<td>Link to LSF</td>
</tr>
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</table>

## Learning & Memory

| Business Process Intelligence                                         | online                 | CS6633.000        | 2 + 2 | 6    | M. Reichert with M. Winter   | no                       | Link to LSF |
| Data Mining                                                           | online                 | CS7860.001        | 2 + 2 | 6    | F. Schwenker                  | no                       | Link to LSF |
| Graph Analytics and Deep Learning                                     | online                 | CS6654.000        | 2 + 2 | 6    | A. Scherp with J. Töllch     | no                       | Link to LSF |
| Learning Systems I                                                    | online                 | CS8002.000        | 3 + 1 | 6    | D. Braun with H. Hihn        | no                       | Link to LSF |

## Planning & Reasoning

| Algorithms for Knowledge Representation                                | online                 | CS6321.001        | 3 + 1 | 6    | Y. Kazakov                    | no                       | Link to LSF |
| Foundations of Semantic Web Technologies                              | online                 | CS6380.001        | 3 + 1 | 6    | B. Glimm                      | no                       | Link to LSF |

## Interaction

| Human Factors in Transportation                                        | online                 | PSY76548.001      | 3     | 6    | M. Baumann                    | yes                      | Link to LSF |
| Neurotechnology: Brain-Machine-Interfacing                            | online                 | CS7904.000        | 2 + 2 | 6    | D. Braun mit S. Schach        | no                       | Link to LSF |
| The costs of 'free will' in action                                    | online                 | PSY7XXX0.001      | 2 + 2 | 6    | M. Ernst, M. Verneau          | yes                      | Link to LSF |

## Methods, general Concepts & Tools

| Programming Concepts for Cognitive Systems                             | online                 | CS6308.000        | 2 + 2 | 6    | B. Glimm                      | no                       | Link to LSF |
| Research Colloquium: Recent Developments in Cognitive Neurosciences   | online                 | MED8000.016       | 2     | 4    | M. Kiefel                     | yes                      | Link to LSF |
| Neurosciences and Cognitive Psychology                                 | online                 | HSZ 3100.002      | 2     | 4    | Eickle                        | no                       | Link to LSF |
| Topics in Cognitive Psychology                                        | online                 | PSY00000.014      | 2     | 4    | M. Ernst                      | yes                      | Link to LSF |
| Web Information Retrieval                                             | online                 | CS6652.000        | 2 + 2 | 6    | A. Scherp mit J. Töllch       | no                       | Link to LSF |

## Applied Subject

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<th>planned implementation</th>
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<tr>
<td>Perception</td>
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<tr>
<td>Multisensory Perception for Action 1</td>
<td>online</td>
<td>CS8757.000</td>
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<td>M. Ernst</td>
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<tr>
<td>Project Computational Vision and Image Processing</td>
<td>online</td>
<td>CS8000.016</td>
<td>4</td>
<td>8</td>
<td>H. Neumann with Ch. Javers</td>
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<tr>
<td>Visual Information Processing (Project and Seminar)</td>
<td>online</td>
<td>CS5900.133</td>
<td>4</td>
<td>8</td>
<td>H. Neumann with Ch. Javers</td>
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<tr>
<td>Learning &amp; Memory</td>
<td>online</td>
<td>CS8000.024</td>
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<td>D. Braun with H. Hihn</td>
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<tr>
<td>Project Deep Learning for Autonomous Cars</td>
<td>online</td>
<td>EN0G 74795</td>
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<td>V. Belagiannis</td>
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<tr>
<td>Project Deep Reinforcement Learning</td>
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<td>CS8000.029</td>
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<td>8</td>
<td>D. Braun with H. Hihn</td>
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</tr>
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## Learning & Reasoning

| Project Advanced Automated Reasoning                                   | online                 | CS6400.009        | 4     | 8    | Y. Kazakov                    | no                       | Link to LSF |
| Project Advanced Semantic Web                                         | online                 | CS6400.001        | 4     | 8    | B. Glimm                      | no                       | Link to LSF |
| Project Automated Reasoning                                           | online                 | CS6400.006        | 4     | 8    | Y. Kazakov                    | no                       | Link to LSF |
| Explainable Artificial Intelligence                                    | online                 | CS6400.010        | 4     | 8    | F. Lindner                    | no                       | Link to LSF |
| Project Semantic Web                                                  | online                 | CS6400.007        | 4     | 8    | B. Glimm                      | no                       | Link to LSF |

## Interaction

| Investigations in Cognitive Ergonomics - Basics                        | online                 | CS8758.000        | 4     | 8    | A. Huckauf                    | yes                      | Link to LSF |
| Investigations in Cognitive Ergonomics - Research Trends              | online                 | CS8759.000        | 4     | 8    | A. Huckauf                    | yes                      | Link to LSF |
| Project Brain-Machine-Interfacing                                     | online                 | CS8000.022        | 4     | 8    | D. Braun with S. Schach       | no                       | Link to LSF |
| Project Dialogue Systems for Cognitive Systems                         | online                 | CS8410.007        | 4     | 8    | W. Minker                     | no                       | Link to LSF |
| Project Driver-Vehicle Interaction                                    | online                 | PSY73056.002      | 4     | 8    | M. Baumann with T. Stoll     | yes                      | Link to LSF |

## Applied methods and concepts in Cognitive Systems

| Investigating Functions in Perception, Cognition and Motor Behavior    | online                 | CS8000.028        | 4     | 8    | D. Braun, H. Neumann, M. Ernst| no                       | Link to LSF |