

# Master and PhD Program Computational Neuroscience

## Recommended Courses and Programs, Summer Term 2019

The following courses are recommended to **senior master students** of Computational Neuroscience (at least in their 3<sup>rd</sup> semester) and **PhD students**. We recommend that master students in the 1<sup>st</sup> and 2<sup>nd</sup> semesters focus on the internal BCCN courses and choose courses for Individual Studies upon consultation with the mentor.

In general, recognition of courses for “Individual Studies” or “Courses on Advanced Topics” must be discussed beforehand with the mentor, the examination board or the teaching coordinator.

*Based on the list of 2018, courses in italics have not been confirmed to take place also in 2019  
The list is preliminary and could be subject to change*

This list as well as a list of relevant summer schools and conferences is available at:  
[https://www.bccn-berlin.de/Graduate+Programs/7\\_Web+Links/](https://www.bccn-berlin.de/Graduate+Programs/7_Web+Links/)

For further recommendations see:

<http://www.neuroscience-berlin.de/education/class/>

For questions and feedback: [graduateprograms@bccn-berlin.de](mailto:graduateprograms@bccn-berlin.de)

TITLE	CONTACT	LINK and INFO
<b>TU Berlin</b>		
<b>Neuronale Netze (seminar, in German)</b>	Reinhold Orglmeister, <a href="mailto:reinhold.orglmeister@tu-berlin.de">reinhold.orglmeister@tu-berlin.de</a>	<a href="#">TU Berlin_Neuronale-Netze</a> <a href="#">Moses Link</a>
<i>Aktuelle Fragen des Konnektionismus (colloquium, in English)</i>	<i>Klaus Obermayer, <a href="mailto:klaus.obermayer@mailbox.tu-berlin.de">klaus.obermayer@mailbox.tu-berlin.de</a></i>	<i><a href="#">TU Berlin_Konnektionismus</a></i>
<b>Wahrscheinlichkeitstheorie III (lecture+ tutorial, in German)</b>	Michael Scheutzow <a href="mailto:ms@math.tu-berlin.de">ms@math.tu-berlin.de</a>	<a href="#">TU Berlin_Wahrscheinlichkeitstheorie</a>
<b>Maschinelles Lernen/Machine Learning</b> - Integrated Lecture Machine Learning II (lecture + tutorial, in English) - Integrated Lecture Cognitive Algorithms (lecture + tutorial, in English) - Workshop Machine Learning (block seminar for beginners, in English) - Python Programming for Machine Learning (programming course, in English) - Lab Course Machine Learning and Data Analysis (in English, <b>at the moment course is full!</b> ) - Machine Learning in the Sciences (lecture, in English) - Hot Topics in Machine Learning (seminar, in English)	Klaus Robert Müller, <a href="mailto:klaus-robert.mueller@tu-berlin.de">klaus-robert.mueller@tu-berlin.de</a>	<a href="#">TU Berlin_Machine-Learning</a>
<b>Automatic Image Analysis (lecture + tutorial, in English)</b>	Olaf Hellwich, <a href="mailto:olaf.hellwich@tu-berlin.de">olaf.hellwich@tu-berlin.de</a>	<a href="#">TU Berlin Automatic Image Analysis</a>
<b>Microwave and Radar Remote</b>	Olaf Hellwich,	<a href="#">TU Berlin - Microwave Radar Remote Sensing</a>

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<b>Sensing (lecture + tutorial, in English)</b>	<a href="mailto:olaf.hellwich@tu-berlin.de">olaf.hellwich@tu-berlin.de</a>	
<b>Computational Biology (lecture + tutorial, in English)</b>	Oliver Brock <a href="mailto:oliver.brock@tu-berlin.de">oliver.brock@tu-berlin.de</a>	<a href="#">TU Berlin Computational Biology</a>
<b>Seminar Computational Biology (seminar, in English)</b>	Oliver Brock <a href="mailto:oliver.brock@tu-berlin.de">oliver.brock@tu-berlin.de</a>	<a href="#">TU Berlin Computational Biology</a>
<i>Robotics (seminar, in German)</i>	Oliver Brock <a href="mailto:oliver.brock@tu-berlin.de">oliver.brock@tu-berlin.de</a>	<a href="#">TU Berlin Robotics</a>
<b>Robotics (integrated lecture, in English)</b>	Oliver Brock <a href="mailto:oliver.brock@tu-berlin.de">oliver.brock@tu-berlin.de</a>	<a href="#">TU Berlin Robotics</a>
<b>Seminar Robotics: Current Topics (seminar, in English)</b>	Oliver Brock <a href="mailto:oliver.brock@tu-berlin.de">oliver.brock@tu-berlin.de</a>	<a href="#">TU Berlin Robotics: Current Topics</a>
<i>Monte Carlo Methods in Artificial Intelligence and Machine Learning (lecture + tutorial, in English)</i>  <i>SS 2019 – no lectures, on sabbatical</i>	Manfred Opper, <a href="mailto:manfred.opper@tu-berlin.de">manfred.opper@tu-berlin.de</a>	<a href="#">TU Berlin Monte Carlo Methods</a>
<i>Seminar Künstliche Intelligenz (seminar, in German)</i>  <i>SS 2019 – no lectures, on sabbatical</i>	Manfred Opper, <a href="mailto:manfred.opper@tu-berlin.de">manfred.opper@tu-berlin.de</a>	<a href="#">TU Berlin Künstliche Intelligenz</a>
<i>Neuro-Usability (project course, in English)</i>	Jan-Niklas Antons, <a href="mailto:jan-niklas.antons@tu-berlin.de">jan-niklas.antons@tu-berlin.de</a>	<a href="#">TU Berlin Neuro-Usability</a>
<b>Usability Engineering (lecture + tutorial, in German)</b>	Sebastian Möller, <a href="mailto:moeller@tu-berlin.de">moeller@tu-berlin.de</a>	<a href="#">TU Berlin Usability-Engineering</a>
<b>Seminar Quality and Usability (seminar, in German)</b>	Sebastian Möller, <a href="mailto:moeller@tu-berlin.de">moeller@tu-berlin.de</a>	<a href="#">TU Berlin Quality-Usability</a>
<b>Multimodal Interaction (integrated lecture, in German)</b>	Sebastian Möller, <a href="mailto:moeller@tu-berlin.de">moeller@tu-berlin.de</a>	<a href="#">TU Berlin Multimodal Interaction</a>
<b>Quanten-Information – Elementare Einführung (lecture, in German)</b>	Chariton Dreismann <a href="mailto:chariton.dreismann@tu-berlin.de">chariton.dreismann@tu-berlin.de</a>	<a href="#">TU Berlin Quanteninformation</a>
<b>Seminar Nichtlineare Dynamik und Strukturbildung (seminar, in German)</b>	Harald Engel <a href="mailto:harald.engel@tu-berlin.de">harald.engel@tu-berlin.de</a>	<a href="#">TU Berlin Nichtlineare-Dynamik-Strukturbildung</a>
<b>Nichtlineare Dynamik und Kontrolle (lecture + tutorial, in German)</b>	Eckehard Schöll <a href="mailto:eckehard.schoell@tu-berlin.de">eckehard.schoell@tu-berlin.de</a>	<a href="#">TU Berlin Nonlinear-Dynamics-Control</a>
<i>Nichtlineare Dynamik (seminar, in English)</i>	Eckehard Schöll <a href="mailto:eckehard.schoell@tu-berlin.de">eckehard.schoell@tu-berlin.de</a>	<a href="#">TU Berlin Nichtlineare Dynamik</a>

TITLE	CONTACT	LINK and INFO
<i>Kolloquium des Sfb 910 "Control of Self-Organizing Nonlinear Systems" (in English)</i>	Eckehard Schöll <a href="mailto:eckehard.schoell@tu-berlin.de">eckehard.schoell@tu-berlin.de</a>	<a href="#">TU Berlin_SFB-910-Nonlinear-Systems</a>
<b>Nonlinear Control Systems (integrated lecture, in English)</b>	Thomas Seel <a href="mailto:seel@control.tu-berlin.de">seel@control.tu-berlin.de</a>	<a href="#">TU Berlin Nonlinear Control Systems</a>
<b>Nichtlineare Dynamik und deren Anwendungen I (lecture, in German)</b>	Serhiy Yanchuk, <a href="mailto:yanchuk@tu-berlin.de">yanchuk@tu-berlin.de</a>	<a href="#">TU Berlin Nichtlineare Dynamik und deren Anwendungen I</a>
<b>SUGGESTION: Nichtlineare Dynamik und deren Anwendungen II (lecture, in German)</b>	Serhiy Yanchuk, <a href="mailto:yanchuk@tu-berlin.de">yanchuk@tu-berlin.de</a>	<a href="#">TU Berlin Nichtlineare Dynamik und deren Anwendungen II</a>
<b>Dynamische Systeme in der Neurowissenschaft (lecture + tutorial, in German)</b>	Serhiy Yanchuk, <a href="mailto:yanchuk@tu-berlin.de">yanchuk@tu-berlin.de</a>	<a href="#">TU Berlin Dynamische Systeme Neurowissenschaft</a>
<i>Applied dynamical systems (research seminar, in English)</i>	Serhiy Yanchuk, <a href="mailto:yanchuk@tu-berlin.de">yanchuk@tu-berlin.de</a>	<a href="#">TU Berlin Applied dynamical systems</a>
<i>Neuronale Grundlagen von Kognition und Handeln (lecture + seminar, in German)</i>	Evelyn Jungnickel, <a href="mailto:evelyn.jungnickel@tu-berlin.de">evelyn.jungnickel@tu-berlin.de</a>	<a href="#">TU Berlin_Kognition-Handeln</a>
<b>Nonlinear Dynamics in Complex Networks (lecture, in English)</b>	Anna Zakharova <a href="mailto:anna.zakharova@tu-berlin.de">anna.zakharova@tu-berlin.de</a>	<a href="#">TU Berlin Nonlinear Dynamics in Complex Networks</a>
<b>Seminar Dynamics of Adaptive Networks (seminar, in English)</b>	Anna Zakharova <a href="mailto:anna.zakharova@tu-berlin.de">anna.zakharova@tu-berlin.de</a>	<a href="#">TU Berlin Dynamics of Adaptive Networks</a>
<b>Models of biological neural networks (lecture, in English)</b>	Tilo Schwalger, <a href="mailto:tilo.schwalger@bccn-berlin.de">tilo.schwalger@bccn-berlin.de</a>	<a href="#">TU Berlin Models of biological neural networks</a>
<b>Current topics in Computational neuroscience / Stochastic models in neuroscience (seminar, in English)</b>	Tilo Schwalger, <a href="mailto:tilo.schwalger@bccn-berlin.de">tilo.schwalger@bccn-berlin.de</a>	<a href="#">TU Berlin Current topics in Computational Neuroscience / Stochastic Models</a>
<b>HU Berlin</b>		
<b>Computational Neuroscience: Oberseminar (in English)</b>	Richard Kempster <a href="mailto:r.kempster@biologie.hu-berlin.de">r.kempster@biologie.hu-berlin.de</a>	<a href="#">HU Berlin_OS-Computational-Neuroscience</a>
<i>Electrical field potentials (seminar, in English)</i>	Robert Martin <a href="mailto:graduateprograms@bccn-berlin.de">graduateprograms@bccn-berlin.de</a>	<a href="#">HU Berlin Electrical Field Potentials</a>
<b>Neural Noise and Neural Signals (lecture + tutorial, in German)</b>	Benjamin Lindner <a href="mailto:benjamin.lindner@bccn-berlin.de">benjamin.lindner@bccn-berlin.de</a>	<a href="#">HU Berlin Neural-Noise</a>
<b>Physikalische Kinetik (lecture +</b>	Igor Sokolov	<a href="#">HU Berlin Physikalische-Kinetik</a>

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tutorial, in German)	<a href="mailto:igor.sokolov@physik.hu-berlin.de">igor.sokolov@physik.hu-berlin.de</a>	
<b>Forschungsseminar Irreversible Prozesse und Selbstorganisation (seminar, in German)</b>	Benjamin Lindner <a href="mailto:benjamin.lindner@bccn-berlin.de">benjamin.lindner@bccn-berlin.de</a>	<a href="#">HU Berlin Irreversible Prozesse und Selbstorganisation</a>
<b>Forschungsseminar zur Nichtlinearen Dynamik und Statistischen Physik (seminar, in German)</b>	Benjamin Lindner <a href="mailto:benjamin.lindner@bccn-berlin.de">benjamin.lindner@bccn-berlin.de</a>	<a href="#">HU Berlin Nichtlineare Dynamik</a>
<b>Biologische Physik (lecture + tutorial, in German)</b>	Martin Falcke <a href="mailto:martin.falcke@mdc-berlin.de">martin.falcke@mdc-berlin.de</a>	<a href="#">HU Berlin Biologische Physik</a>
<i>Bioakustik der Insekten (lecture + Oberseminar, in German)</i>	Bernhard Ronacher <a href="mailto:bernhard.ronacher@rz.hu-berlin.de">bernhard.ronacher@rz.hu-berlin.de</a>	<a href="#">HU Berlin Bioakustik-Insekten</a>
<i>Kommunikationsverhalten: Signale und Signalerkennung (practical, in German)</i>	Bernhard Ronacher <a href="mailto:bernhard.ronacher@rz.hu-berlin.de">bernhard.ronacher@rz.hu-berlin.de</a>	<a href="#">HU Berlin Kommunikationsverhalten: Signale und Signalerkennung</a>
<i>Kolloquium Sinnesbiologie und Verhaltensphysiologie (colloquium, in German)</i>	Bernhard Ronacher <a href="mailto:bernhard.ronacher@rz.hu-berlin.de">bernhard.ronacher@rz.hu-berlin.de</a>	<a href="#">HU Berlin Kolloquium Sinnesbiologie Verhaltensphysiologie</a>
<i>Cognitive Neurobiology (lecture + seminar + practical, in English)</i>	York Winter, <a href="mailto:york.winter@charite-berlin.de">york.winter@charite-berlin.de</a>	<a href="#">HU Berlin Cognitive Neurobiology</a>
<b>Cognitive Neurobiology: Current topics (Oberseminar, in English)</b>	York Winter, <a href="mailto:york.winter@charite-berlin.de">york.winter@charite-berlin.de</a>	<a href="#">HU Berlin Cognitive Neurobiology Current topics</a>
<b>Mathematische Modelle in der Molekularbiologie (lecture, in German)</b>	Nils Bluethgen, <a href="mailto:nils.bluethgen@charite.de">nils.bluethgen@charite.de</a>	<a href="#">HU Berlin Mathematische Modelle Molekularbiologie</a>
<b>Analyse hochdimensionaler Daten (lecture and tutorial, in German)</b>	Nils Bluethgen, <a href="mailto:nils.bluethgen@charite.de">nils.bluethgen@charite.de</a>	<a href="#">HU Berlin Analyse hochdimensionaler Daten</a>
<b>Komplexe Systeme in der Biologie (lecture, seminar and practical, in German)</b>	Dirk Brockmann, <a href="mailto:dirk.brockmann@hu-berlin.de">dirk.brockmann@hu-berlin.de</a>	<a href="#">HU Berlin Komplexe Systeme Biologie</a>
<b>Systembiologie (lecture + seminar, in German)</b>	Edda Klipp, <a href="mailto:edda.klipp@rz.hu-berlin.de">edda.klipp@rz.hu-berlin.de</a>	<a href="#">HU Berlin Systembiologie</a>
<b>Neurokognitive Psychologie II (colloquium, in German)</b>	Rasha Abdel-Rahman, <a href="mailto:rasha.abdel.rahman@hu-berlin.de">rasha.abdel.rahman@hu-berlin.de</a> u.a.	<a href="#">HU Berlin Neurokognitive Psychologie II</a>
<i>Spezialgebiete der Bildverarbeitung</i>	Beate Meffert, <a href="mailto:meffert@informatik.hu-berlin.de">meffert@informatik.hu-berlin.de</a>	<a href="#">HU Berlin Spezialgebiete-Bildverarbeitung</a>

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<i>Kognitive Robotik (lecture, in German)</i>	Verena Hafner, <a href="mailto:hafner@informatik.hu-berlin.de">hafner@informatik.hu-berlin.de</a>	<a href="#">HU Berlin Kognitive Robotik</a>
<i>Can robots develop a sense of agency? (Q-team, in English)</i>	Guido Schillaci, <a href="mailto:guido.schillaci@informatik.hu-berlin.de">guido.schillaci@informatik.hu-berlin.de</a>	<a href="#">HU Berlin Robots Sense of Agency</a>
<i>Multivariate Statistical Analysis II (lecture, in English)</i>	Zdenek Hlavka, <a href="mailto:hlavka@wiwi.hu-berlin.de">hlavka@wiwi.hu-berlin.de</a>	<a href="#">HU Berlin Multivariate-Statistical-Analysis</a>
<b>Datenanalyse (seminar, in German/ English)</b>	Sigbert Klinke, <a href="mailto:sigbert@wiwi.hu-berlin.de">sigbert@wiwi.hu-berlin.de</a>	<a href="#">HU Berlin Datenanalyse</a>
<b>FU Berlin</b>		
<i>Embryonalentwicklung des Nervensystems von Vertebraten (lecture + seminar, in German)</i>	Fritz-Günther Rathjen, <a href="mailto:rathjen@mdc-berlin.de">rathjen@mdc-berlin.de</a>	<a href="#">FU Berlin Embryonalentwicklung-Nervensystem</a>
<i>From Anatomy to Behaviour (block course, in English and German)</i>	Hans-Joachim Pflüger, <a href="mailto:pflueger@neurobiologie.fu-berlin.de">pflueger@neurobiologie.fu-berlin.de</a>	<a href="#">FU Berlin From Anatomy to Behaviour</a>
<b>Aktuelle Probleme in der Entwicklungsneurobiologie (German)</b>	FU/MDC Berlin, Fritz-Günter Rathjen <a href="mailto:rathjen@mdc-berlin.de">rathjen@mdc-berlin.de</a>	<a href="#">MDC Berlin Entwicklungsneurobiologie</a>
<b>Molekulare Neurogenetik (lecture + seminar + practical, in German)</b>	Stephan Sigrist, <a href="mailto:stephan.sigrist@fu-berlin.de">stephan.sigrist@fu-berlin.de</a>	<a href="#">FU Berlin Molekulare Neurogenetik</a>
<b>Verhaltensbiologie (seminar + practical, in German)</b>	Constance Scharff, <a href="mailto:constance.scharff@fu-berlin.de">constance.scharff@fu-berlin.de</a>	<a href="#">FU Berlin Verhaltensbiologie</a>
<b>Einführung in Tierschutzethik und -recht (German)</b>	Christa Thöne-Reineke <a href="mailto:thoene-reineke.christa@fu-berlin.de">thoene-reineke.christa@fu-berlin.de</a>	<a href="#">FU Berlin Tierschutzethik-Recht</a>
<i>Applied Machine Learning (lecture + tutorial, in German)</i>	Annalisa Marsico, <a href="mailto:annalisa.marsico@fu-berlin.de">annalisa.marsico@fu-berlin.de</a>	<a href="#">FU Berlin Applied Machine Learning</a>
<i>Metabolische Netzwerke (lecture + tutorial, in German and English)</i>	Alexander Bockmayr, <a href="mailto:alexander.bockmayr@fu-berlin.de">alexander.bockmayr@fu-berlin.de</a>	<a href="#">FU Berlin Metabolic Networks</a>
<b>Netzwerkanalyse (lecture + tutorial + seminar, in German)</b>	Alexander Bockmayr, <a href="mailto:alexander.bockmayr@fu-berlin.de">alexander.bockmayr@fu-berlin.de</a>	<a href="#">FU Berlin Netzwerkanalyse</a>
<i>Rechnergestützte Systembiologie (seminar, in German)</i>	Heike Siebert, <a href="mailto:siebert@mi.fu-berlin.de">siebert@mi.fu-berlin.de</a>	<a href="#">FU Berlin Rechnergestützte-Systembiologie</a>
<b>Journal Club Computational Biology (Seminar, in English)</b>	Knut Reinert, <a href="mailto:knut.reinert@fu-berlin.de">knut.reinert@fu-berlin.de</a>	<a href="#">FU Berlin Journal-Club</a>
<i>Physiologie (lecture + tutorial +</i>	Dorothee Günzel,	<a href="#">FU Berlin Physiologie</a>

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<i>seminar, in German)</i>	<a href="mailto:dorothee.guenzel@charite.de">dorothee.guenzel@charite.de</a>	
<b>Courses offered by other schools and graduate programs in Berlin</b>		
<b>Master Program Molecular Medicine</b> Molecular Mechanisms of Disease; Maintenance and Integrity of the Endocrine System; Development and Genetics; Functional Genomics; Infection and Pathogens; Therapeutic Research and Development	Charité; project coordinator - <a href="mailto:naomi.weizenbaum@charite.de">naomi.weizenbaum@charite.de</a>	<a href="#">Molecular Medicine Master-Program</a> Please contact the contact person for information about currently offered courses
<b>Berlin School of Mind and Brain</b>	Program coordinator – <a href="mailto:mb-education@hu-berlin.de">mb-education@hu-berlin.de</a>	<a href="#">Mind and Brain Master-Program</a> <a href="#">Mind and Brain Doctoral-Program</a> Note: The courses are generally not open to the public. Please write to the contact person to apply for a course.
<b>Berlin Mathematical School</b>	TU, HU, FU, Uni Potsdam <a href="mailto:office@math-berlin.de">office@math-berlin.de</a>	<a href="#">Berlin Mathematical School Master-Program</a>
<b>Master Program Medical Neurosciences</b>	Charité Benedikt Salmen <a href="mailto:benedikt.salmen@charite.de">benedikt.salmen@charite.de</a> Lutz Steiner <a href="mailto:lutz.steiner@charite.de">lutz.steiner@charite.de</a>	<a href="#">Medical Neurosciences Master-Program</a> Please contact the contact person for information about currently offered courses
<b>Master Program SCAN (Social, Cognitive, Affective Neuroscience)</b>	<a href="mailto:studium-psy@fu-berlin.de">studium-psy@fu-berlin.de</a> Dr. Jana Lüdtko, <a href="mailto:jana.luedtke@fu-berlin.de">jana.luedtke@fu-berlin.de</a>	<a href="#">SCAN Master-Program</a> <a href="#">SCAN Master-Program-Brochure</a> Please contact the contact person for information about currently offered courses.