

PhD Development Training

Courses and activities for developing your professional and personal competences



PhD Competence Model

Research Skills & Knowledge
Responsible Conduct of Science
Personal Effectiveness
Communication
Professional Development
Leadership & Management
Teaching

How it works

PhD students are expected to follow a PhD Development Training which fits the duration and type of contract of the PhD project. The GSMS invites PhD students to shape their learning trajectories by selecting courses and activities based on the competences that they wish to develop (test your competences [here](#)). A certificate from the GSMS will be handed over when the requirements for the PhD Development Training are met.

The GSMS curriculum is based on the European Credit Transfer and Accumulation System. While carrying out your PhD project, European Credit (EC) points must be obtained by taking courses and activities related to the PhD research or one of the competences. One EC is equivalent to a workload of 28 hours.

EC points can be obtained by:

- Courses and activities on offer in our PhD Development Training (note that some courses are obligatory*)
- Courses and activities outside the GSMS (at least Master level and related to the PhD research or one of the competences**)

Note: E-learning courses are also permitted. Please consult [our guidelines](#).

* *Obligatory courses*

- [Research Data Management](#)

- [Scientific Integrity](#)

- [Managing your PhD](#) (not applicable for: Employee in PhD track, Externally financed PhD candidate, External PhD candidate)

** ** For the competence personal effectiveness, only the courses and workshops in the overview will be accepted for a reimbursement of the training budget and awarded with EC points.

Requirements PhD students from the institutes **GUIDE, SHARE, KOLFF or CRCG**

- **Courses:** A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.
- **Activities:** A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities ([appendix](#)).
- The remaining of the required EC may be collected by a mixture of the two above.

For example: a PhD candidate with a 4 years appointment has obtained 30 EC at the end of the PhD project, of which 18 EC were obtained by taking courses (minimum required 10 EC) and 12 EC by conducting activities (minimum required 10 EC).

EC required

Employed PhD candidate, Scholarship PhD candidate

4 years		30 EC
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4 years	0.8 fte	22.5 EC
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4 years	< 0.8 fte	15 EC
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3 years		22.5 EC
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2 years		15 EC
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Employee in PhD track, Externally financed PhD candidate, External PhD candidate

Regardless of the duration		15 EC
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Requirements PhD students from the institute **Brain & Cognition**

BCN PhD students from the institute Brain and Cognition must meet the requirements (including obligatory courses) for the BCN PhD training programme to obtain the BCN certificate and additionally the certificate of the GSMS. Please consult the [BCN website](#) or BCN ring binder.

Need to know / abbreviations

The GSMS has made an overview of courses and activities that are offered to PhD students, both internally at the GSMS and elsewhere within the UMCG and UG. All of them are categorized by seven core competences. However, you may also select courses and activities outside this range on offer.

The overview also provides the following additional information:

Preferred phase: Within which phase of my PhD does the course or activity fit? This is a general recommendation only, courses and activities can be taken at any time during your PhD. Only for the obligatory courses there is a strong recommendation.

Provider: PhD students can select courses and activities from numerous providers. The provider is mentioned in this column.

Format: The programme consists of a variety of training elements. This can be a course or an activity such as a workshop, symposium, scientific conference or miscellaneous.

Transferable skills: For each course or activity we show whether skills can be acquired which you bring to future employment settings.

EC: The amount of European Credit that can be obtained. This may be variable depending on the workload or whether the PhD student also take an exam.

Cluster Max: For this activity a maximum amount of EC that can be obtained within a cluster of activities.

Do I need to pay?

The GSMS courses are offered free of charge for registered PhD students (including all students from BCN and GRIP). Courses and activities from the providers below may request a (small) fee for participation. The GSMS supplies a maximum of €600 per calendar year for participation in external courses (outside the GSMS), and another €600 for attending conferences.

CIT = Center for Information Technology

CMB = Central Medical Library

CRO = Clinical Research Office

GGG (CPS) = Groningen Graduate Schools (Career Perspective Series)

LC = Language Centre

UG = University of Groningen

UGCE = University of Groningen Centre of Entrepreneurship

ABOUT THIS INTERACTIVE PDF

[MENU](#) to go to the overview of the competences on the front page.

[Competence](#) to go directly to the overview of courses and activities belonging to the competence.

[Advanced Clinical Epidemiology](#) to get more information and to register for the course or activity on the website.

* to go directly to the appendix for more information.

We advice you to check the most recent version of this pdf regularly.

The pdf will be maintained and updated when necessary.



For corrections and suggestions regarding this document,
please email gsms@umcg.nl

Research Skills & Knowledge



The ability to design and conduct solid research as well as to be aware and constructively critical when evaluating the latest developments within your field.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
Advanced Clinical Epidemiology		GSMS	Course		3	
Advanced Drug Delivery & Drug Targeting		GSMS	Course		2	
Advances in Genetic Epidemiological Research and Data Analysis		GSMS	Course		1.5	
Applied Longitudinal Data Analysis: modelling change over time		GSMS	Course		1.5-2	
Basic Clinical Epidemiology		GSMS	Course		3	
Basics in Medicine (Research Master)		GSMS	Course		8	
Basics in Psychology and Psychosocial Factors (Research Master)		GSMS	Course		8	
BCN Advanced (non)linear regression techniques in R		GSMS	Course		2	
BCN Advanced fMRI course "From Voxel to Networks"		GSMS	Course		1	
BCN Functional Neuroscience: EEG Part (Research Master)		GSMS	Course		5	
BCN Human Neuroanatomy (Research Master)		GSMS	Course		var.	
BCN Introductory fMRI Course		GSMS	Course		1.5	
BCN Mathematics for Neuroscientists		GSMS	Course		1 - 1.5	
BCN Orientation Course (for BCN PhD obligatory)		GSMS	Course		3	
BCN Philosophy of Neuroscience (Research Master)		GSMS	Course		var.	
BCN Statistics Course		GSMS	Course		2	
Blood-material interactions		GSMS	Course		0.5	
Cell (bio)material interactions		GSMS	Course		0.25	
Cellular Imaging Advanced		GSMS	Course		4	
Cellular Imaging Light		GSMS	Course		1	
Colloid stability		GSMS	Course		0.25	
Critical Appraisal of Literature (CAT)	Start-Middle	GSMS	Course	✓	1.5	
Data programming courses	Start-Middle	CIT	Course	✓	var.	
DLVO theory and introduction		GSMS	Course		0.25	
Epidemiology and Applied Statistics		GSMS	Course		3	
Gene Expression Data for Beginners		GSMS	Course		1	
GWP 1: Beginners guide to grant writing	End	GGG (CPS)	Course	✓	0.5	
GWP 2: From Chaos to Focus - How to develop your own research plan	End	GGG (CPS)	Course	✓	0.5	
GWP 3a: Rubicon Grant Writing Training	End	GGG (CPS)	Course	✓	0.5	

Research Skills & Knowledge



The ability to design and conduct solid research as well as to be aware and constructively critical when evaluating the latest developments within your field.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
GWP 3b: Writing your grant like a pro - The narrative of your grant proposal	End	GGG (CPS)	Course	✓	0.5	
Handling Lifelines data on the UMCG High Performance Cluster		GSMS	Course		var.	
Health Psychology; advanced course (Research Master)		GSMS	Course		5	
Image analysis		GSMS	Course		0.25	
In vivo imaging using IVIS		GSMS	Course		0.25	
Introduction into R		GSMS	Course		1.4	
Introduction to Genetic Epidemiological Research and Data Analysis		GSMS	Course		1	
Introduction to Qualitative Research Methods		GSMS	Course		2	
Laboratory Animal Science		GSMS	Course		4.5	
Measuring Concepts in Quantitative Research (Research Master)		GSMS	Course		2	
Medical Statistics	Start	GSMS	Course		2.5 - 3.5	
Microbiological Safety		GSMS	Course		1	
Microscopy within Kolff		GSMS	Course		0.25	
Generalized Linear and Mixed Effects Models		GSMS	Course		2 - 2.5	
Modeling in Health Technology Assessment		GSMS	Course		2.5	
Phase II/III Clinical Trials		GSMS	Course		1.5	
Polymers in Medicine		GSMS	Course		0.25	
Psychiatric Epidemiology (Research Master)		GSMS	Course		4	
Python in biology for beginners and advanced		GSMS	Course		1	
QCM - Quartz Crystal Microbalance		GSMS	Course		0.25	
Quality-of-Life and Patient-Reported Outcome Measures (QoL & PROMs)		GSMS	Course		2.5	
Quantitative Bioanalysis		GSMS	Course		5	
Study Design in Clinical Epidemiology (Research Master)	Start	GSMS	Course		4	
Surface characterization		GSMS	Course		0.25	
Systematic reviews and meta-analysis	Start-Middle	GSMS	Course		2	
Winter or summer schools (on relevant topics)		var.	Course		var.	
Writing a thesis using Word	End	CIT	Course	✓	0.5	
X-Ray Photoelectron Spectroscopy (XPS)		GSMS	Course		0.25	

Research Skills & Knowledge



The ability to design and conduct solid research as well as to be aware and constructively critical when evaluating the latest developments within your field.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
BCN Lectures		GSMS	Seminar		0.2	*
BCN Master Classes (for BCN PhD only)		GSMS	Masterclass		0.5	
BCN PhD Retreat once with and once without Presentation		GSMS	Meeting		var.	
BCN Poster Presentation - without poster		GSMS	Meeting		0.2	*
BCN Symposium		GSMS	Symposium		0.5	*
Data programming workshops	Start-Middle	CIT	Workshop	✓	var.	*
EndNote		CMB	Workshop		0.1	*
Mendeley Introduction		CMB	Workshop		0.1	*
PubMed	Start	CMB	Workshop		0.1	*
Search Strategy for a Systematic Review		CMB	Workshop	✓	0.1	*
Annual PhD meeting Research Institutes		var.	Meeting	✓	0.25 / meeting	*
Attending scientific conferences/ symposia (only if no presentation is given)		var.	Scientific conference / symposium	✓	0.25 / meeting	*
Journal clubs		var.	Misc.	✓	0.1 / journal club	*
Supervised reviewing of manuscripts		var.	Misc.	✓	0.5 / manuscript	*
Granted project proposal - 1st author		var.	Misc.	✓	var. (appendix)	
International research experience / exchange visits (research stay abroad min. 2 weeks)		var.	Misc.	✓	max. 4	*
Stay in Dutch lab		var.	Misc.		max. 4	*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

Responsible Conduct of Science



The ability to follow the code of scientific conduct as well as to demonstrate a collaborative attitude and openness towards managing and sharing data for the advancement of scientific knowledge.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
Basic course on Regulations and Organization of Clinical Trials (BROK®)	Start	NFU	e-learning		1.5	
Privacy in Research (with UMCG account)	Start	CRO	e-learning		0.2	
Privacy in Research						
Research Data Management (obligatory)	Start	GSMS	Course	✓	0.1	
Scientific integrity (obligatory)	Start-Middle	GSMS	Course	✓	2.5	
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
Are you ready for Open Access publishing?		CMB	Workshop		0.1	*
PURE		CMB	Workshop		0.1	*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

Personal effectiveness



The ability to focus on achieving your goals through commitment and self-initiative as well as to deal with setbacks and to learn from feedback and self-reflection.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
For the competence personal effectiveness, only the courses and workshops in the overview will be accepted for a reimbursement of the training budget and awarded with EC points.						
Embrace imperfection		SSC	Course	✓	0.3	*
Individual sessions with a psychologist		SSC	Misc.		0.0	
Learn to fail (and stay happy about it!)	Start	GGG (CPS)	Workshop	✓	0.2	*
Mindfulness-based stress reduction		SSC	Course		0.0	
Online self-support (e-health)		SSC	E-learning		0.0	
Overcome your fear of failure		SSC	Course	✓	0.4	*
Peer-to-peer support groups		GSMS	Workshop		0.4	*
Stop procrastinating		SSC	Course	✓	0.3	*
Stress management - When your PhD feels like a battle		GSMS	Course		0.3	*
Work-life balance	Start	SSC	Workshop	✓	0.1	*

* For more information [see appendix](#).

Communication



The ability to transfer your message clearly and convincingly through speech and text as well as to enable effective communication through open-minded listening.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
Dutch CEFR A0 up to B1 (max 126 hours, (partially) reimbursed by RUG)		LC	Course	✓	var.	
Dutch CEFR B1 and onwards		LC	Course	✓	var.	
English CEFR B2 level and onwards (ENG 4, 5 and 6)		LC	Course	✓	var.	
Presentation skills	Start	GSMS	Course	✓	0.5	
Publishing in English (Beginner's course)	Start	GSMS	Course	✓	3	
Science Writing for clinical or epidemiological research	Start	GSMS	Course	✓	2	
Scientific Writing for biomedical/translational research	Start	GSMS	Course	✓	2	
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
30+ tips "How to improve your research impact" (Dutch or English)		CMB	Workshop		0.1	*
Academic CV Building	End	GGG (CPS)	Workshop	✓	0.2	*
Assertiveness now and at your new job	Middle	GGG (CPS)	Workshop	✓	0.2	*
BCN Poster Presentation - with poster (only for BCN PhD students)		GSMS	Meeting	✓	1	
CV building and writing outside academia	End	GGG (CPS)	Workshop	✓	0.2	*
Discovering the Dutch (culture)	Start	LC	Workshop	✓	1	*
Interview skills	End	GGG (CPS)	Workshop	✓	0.2	*
Media Training	Middle	GGG (CPS)	Workshop	✓	0.2	*
Motivation and cover letter writing outside academia	End	GGG (CPS)	Workshop		0.2	*
Negotiation Skills	Middle	GGG (CPS)	Workshop	✓	0.2	*
Networking for people who hate it	Start	GGG (CPS)	Workshop	✓	0.2	*
PhD Support in planning writing your thesis: practical project groups	Start-Middle-End	GSMS	Misc.	✓	-	
Storytelling	Middle	GGG (CPS)	Workshop	✓	0.2	*
Invited lecture outside institute		var.	Misc.	✓	0.5 / meeting	*
Prize for best abstract/poster/presentation		var.	Misc.		0.5 / prize	*
Oral or poster presentation at a conference		var.	Misc.	✓	0.5 / conference	*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

Professional Development



The ability to adapt to responsibilities and a willingness to push the boundaries of one's own capabilities in order to further common goals.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
Entrepreneurship and Valorization for medical sciences	End	GSMS	Course	✓	5	
Extracurricular course on Entrepreneurship	Middle	UGCE	Course	✓	0.8	
My future career (BWC: Be, Want, Can training)	Middle	GGG (CPS)	Course	✓	1	
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
Careers in Consultancy	Middle	GGG (CPS)	Workshop		0.2	*
Entrepreneurship	Middle	GGG (CPS)	Workshop		0.2	*
From PhD to Patents, your next career path	End	GGG (CPS)	Workshop		0.2	*
Make it in the North: Outside Academia Training Opportunities for PhDs	End	GGG (CPS)	Workshop		0.2	*
Working Perspectives at a University of Applied Sciences (Hogeschool)	End	GGG (CPS)	Workshop		0.2	*
Attending the annual PhD Day		UG	Event		1	
Attending Introductory Event	Start	UG	Event		1	
Membership GSMS PhD council		var.	Misc.	✓	2 per yr	*
Membership Research Institutes PhD council		var.	Misc.	✓	1 per yr	*
Organising a symposium / conference		var.	Misc.	✓	var.	*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

Leadership & Management



The ability to effectively plan and prioritize when working towards joint results as well as to contribute to a healthy team spirit and to enable colleagues to grow by providing feedback.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
BCN Management Competences, Part 1 (for BCN PhD obligatory)	Start	GSMS	Course	✓	0.5	
BCN Management Competences, Part 2 (for BCN PhD obligatory)	Start	GSMS	Course	✓	1.5	
Managing your PhD (obligatory)	Start	GSMS	Course	✓	2	
The Empowered PhD: How to get beyond being a good student	Start	GGs (CPS)	Course	✓	0.3	
Women's paths to leadership	Middle	GGs (CPS)	Course	✓	0.3	
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
Bullet Journaling: The Basics	Start-Middle	SSC	Workshop	✓	0.1	*
Managing your supervisor (this topic is also part of the Managing your PhD course)	Start	SSC	Workshop	✓	0.1	*
Scrumming and other project management techniques	Start	GGs (CPS)	Workshop	✓	0.2	*
Speedreading	Start-Middle	SSC	Workshop	✓	0.1	*
Team work	Mid	GGs (CPS)	Workshop	✓	0.2	*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

Teaching



The ability to convey clear learning goals and to provide supervision as well as to demonstrate openness to using feedback for improvement and reflecting on teaching practices.

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	EC	CLUSTER MAX
Courses A minimum of 1/3 of the required EC must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.						
Introduction to teaching (for PhD students who are not officially teaching a course but would like to learn more about teaching and mentoring)	Start-Middle	GGG (CPS)	Course	✓	1.1	
Start to teach: Taking steps in your professional development as a teacher (Specifically for PhDs who will be actively teaching a course)	Middle	GGG (CPS)	Course	✓	1.5	
Activities A minimum of 1/3 of the required EC must be obtained by conducting other PhD research activities or competence related activities.						
Teaching and supervision of students (at university level) Tutor/mentor Lecture Coach master or bachelor scientific thesis	Middle-End	var.	Misc.	Depending on time invested		*
Other Workshops / Masterclasses / Seminars		var.	Misc.			*

* For more information [see appendix](#).

* Appendix

PhD research activities or competence related activities

COMPETENCE	CREDITS	MAXIMUM PER CLUSTER OF ACTIVITIES	REMARKS
		MAXIMUM EC FOR A TRAINING PROGRAMME OF 30 EC, FOR A TRAINING PROGRAMME OF 22.5 EC OR 15 EC PROPORTIONALLY LESS	
Workshops/Master classes/seminars		2 EC	
≤ half a day	0.1 EC/meeting		
half a day < ≥ 1 day	0.25 EC/meeting		
> 1 day	0.5 EC/meeting		
Fixed EC			
Research skills and knowledge			
Annual PhD meeting Research Institutes	0.25/annual meeting		
Journal clubs	0.1/journal club		
Attending scientific conferences/ symposia (only if no presentation is given)	0.25/conferences		
Granted project proposal – 1st author:			
< 10,000 Euro	0.5 EC		
10,000 <> 30,000 Euro	1 EC		
> 30,000 Euro	2 EC		
Supervised reviewing of manuscripts	0.5/manuscript	3 EC	
Research stay abroad (minimum 2 weeks)		4 EC	Depending on time invested (28 hrs per EC)
Stay in Dutch lab		4 EC	Is granted only in very special occasions. Prior to the visit to the Dutch lab, the supervisor and PhD student must - with arguments - appeal for granting with the PhD education committee of the Research institute.

*** Appendix**

PhD research activities or competence related activities

COMPETENCE	CREDITS	MAXIMUM PER CLUSTER OF ACTIVITIES	REMARKS
<p>MAXIMUM EC FOR FULL TIME 4 YEARS PHD STUDENTS, 3 AND 2 YEARS STUDENTS ACCORDINGLY LESS</p>			
<p>Communication</p>			
Presenting data at scientific conferences - oral or poster	0.5/conference	} 6 EC	
Invited lecture outside institute	0.5/meeting		
Prize for best abstract/poster/presentation	0.5/prize		
<p>Professional Development</p>			
Attending the annual PhD Day RUG	1 EC/event	} 6 EC	Depending on time invested (28 hrs per EC)
Attending Introductory Event RUG	1 EC/event		
Membership GSMS PhD council	2 EC/year		
Membership Research Institutes PhD councils	1 EC/year		
Organisation of symposium/conference			
<p>Teaching <i>At university level</i></p>			
Teaching / supervision of students:		} 4 EC	According to Institute for Medical Education Multiplier Medical Sciences
Tutor/mentor	Depending on		
Lecture	time invested		
Coach master or bachelor scientific thesis			

rug.nl/mu/gsms