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

Graduate School of Medical Sciences

university of groningen

umcg

How it works

PhD students are encouraged 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 are met.

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

Requirements GSMS PhD training certificate

1. **Required number of ECTS**

Employed PhD candidate, Scholarship PhD candidate		
4 years		30
4 years	0.8 fte	22.5
4 years	< 0.8 fte	15
3 years		22.5
(D)MD/PhD		15
Sandwich		15-30: based on duration PhD trajectory and training opportunities partner university. Details can be found here.
Employee in PhD track, Externally financed PhD candidate, External PhD candidate		
Regardless of the duration		15

2. **Obligatory courses**

- Research Data Management
- Scientific Integrity
- Managing your PhD (only obligatory for employed PhD students and Scholarship PhD students, with exemption of PhD student in a sandwich programme)

3. **Eligible courses and activities**

- 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 or intended for professionals, and related to the PhD research or one of the competences*)
  Note: E-learning courses are also permitted. Please consult our guidelines.

* 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 ECTS points.

4. **Requirement to have a balanced programme**

- **Courses**: A minimum of 1/3 of the required ECTS 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 ECTS must be obtained by conducting other PhD research activities or competence related activities (see appendix).
- The remaining of the required ECTS may be collected by a mixture of the two above.

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

Requirements PhD students from the research school BCN
BCN PhD students must meet the requirements (including obligatory courses) for the BCN PhD training programme to obtain the BCN certificate. 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.

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

Do I need to pay?

The GSMS courses are offered free of charge for registered PhD students (including all students from BCN). Courses and activities from the providers below may request a (small) fee for participation. The GSMS supplies a training budget with 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
ML = Medical Library
CRO = Clinical Research Office
GGS (CPS) = Groningen Graduate Schools (Career Perspective Series)
LC = Language Centre
UG = University of Groningen
UGCE = University of Groningen Centre of Entrepreneurship
UIT = UMCG Impact Team

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.
Clinical Epidemiology part I 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 advise 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	ECTS
Courses A minimum of 1/3 of the required ECTS must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.					
Advanced Drug Delivery & Drug Targeting		GSMS	Course		2
Advanced Statistics (Master course: limited spots for PhD students)		GSMS	Course		4
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 Medical Statistics	Start	GSMS	Course		2.5 - 3.5
Clinical Epidemiology Part I		GSMS	Course		3
Clinical Epidemiology Part II		GSMS	Course		3
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 (Master course: limited spots for PhD students)		GSMS	Course		5
BCN Human Neuroanatomy (Master course: only limited spots for BCN PhD students)		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 (Master course: only limited spots for BCN PhD students)		GSMS	Course		var.
BCN Statistics Course		GSMS	Course		2
Beyond Multiple Linear Regressions with R (Master course: limited spots for PhD students)		GSMS	Course		3
Data programming courses	Start-Middle	CIT	Course	✓	var.
Epidemiology and Applied Statistics		GSMS	Course		3
Gene Expression Data for Beginners		GSMS	Course		2
Grant writing for PhD students Part 1: Beginners guide to grant writing	Start	GGS (CPS)	Course	✓	-
Grant writing for PhD students Part 2: From Chaos to Focus - How to develop your own research plan	Middle-End	GGS (CPS)	Course	✓	1.0
Grant writing for PhD students Part 3: Rubicon Grant Writing Training	End	GGS (CPS)	Course	✓	1.0

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	ECTS
Courses A minimum of 1/3 of the required ECTS must be obtained by taking courses or following summer schools related to the PhD research or one of the competences.					
BCN Lectures		GSMS	Seminar		0.2
Handling LifeLines data on the UMCG High Performance Cluster		LifeLines	e-learning		var.
Health Measurement Instruments		GSMS	Course		4 with exam 1 without exam
Health Psychology; advanced course (Master course: limited spots for PhD students)		GSMS	Course		5
Introduction into R		GSMS	Course		1.4
Introduction to Causal Inference		GSMS	Course		3.5
Introduction to Genetic Epidemiological Research and Data Analysis		GSMS	Course		1
Introduction to Qualitative Research Methods		GSMS	Course		2
Intuitive Statistics		GSMS	Course		0.5
Laboratory Animal Science		CDP	Course		4
Microbiological Safety		GSMS	Course		1
Nutritional Statistics		GSMS	Course		2
Phase II/III Clinical Trials		GSMS	Course		1.5
Python in biology for beginners and advanced		GSMS	Course		2
Quantitative Bioanalysis (Master course: limited space for PhD students)		FSE	Course		5
Scientific Illustrations in Cell Biology		GSMS	Course		0.5
Single cell RNAseq data for beginners		GSMS	Course		0.5
Study Design in Clinical Epidemiology (Master course: limited spots for PhD students)	Start	GSMS	Course		4
Systematic reviews and meta-analysis	Start-Middle	GSMS	Course		2
Very Quick-R		GSMS	Course		0.5

(activities start on next page)

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	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
AI in Literature Research		MB	Workshop		0.15
BCN Master Classes		GSMS	Masterclass		0.5
BCN PhD Retreat once with and once without Presentation (only for BCN PhD students)		GSMS	Meeting		Var.
BCN Poster Presentation - without poster (only for BCN PhD students)		GSMS	Meeting		0.2
BCN Symposium		GSMS	Symposium		0.5
Data programming workshops	Start-Middle	CIT	Workshop		Var.
EndNote 21		ML	Workshop		0.15
PubMed	Start	ML	Workshop		0.15
Research support & library services	Start	ML	Workshop		0.15
Search Strategy for a Systematic Review		ML	Workshop		0.15
Annual PhD meeting Research Institutes		var.	Event	✓	0.3
Attending scientific conference		var.	Scientific conference	✓	Var. appendix
Journal clubs		var.	Misc.	✓	0.1 (max. 2)
Supervised reviewing of manuscripts		var.	Misc.	✓	0.5 / manuscript
Granted or submitted project proposal – main (co-)applicant:		var.	Misc.	✓	var. (appendix)
Research stay at another institute		var.	Misc.	✓	1 per week (max. 4)
Other Workshop / Symposium / Masterclass		var.	Misc.	✓	var.

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	ECTS
Courses A minimum of 1/3 of the required ECTS 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
Critical AI Literacy Module		UG	e-learning		0.15
Privacy in Research (with UMCG account)	Start	CRO	e-learning		0.2
Research Data Management Awareness (obligatory)	Start	DCC	e-learning	✓	0.15
How AI can support Healthcare		UG / UMCG	e-learning	✓	0.6
Scientific integrity (obligatory)	Start-Middle	GSMS	Course	✓	2.5

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
Draft Data Management Plan review	Start	DCC	Workshop		0.15
How to Publish Open Access		ML	Workshop		0.15
PURE, Profiles and Research Impact		ML	Workshop		0.15
Other Workshop / Symposium / Masterclasses		var.	Misc.		var.

* 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	ECTS
Activities* A minimum of 1/3 of the required ECTS 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 ECTS points.					
Embrace imperfection		SSC	Course	✓	0.3
Individual sessions with a psychologist	Start	SSC	Misc.		-
Learn to fail (and stay happy about it!)		GGS CPS)	Workshop	✓	0.2
Mindfulness-based stress reduction		SSC	Online		-
Online self-support (e-health)		SSC	e-learning		-
Overcome your fear of failure		SSC	Course	✓	0.4
Peer-group coaching (the intervision method)		GSMS	Workshop		0.4
Stop procrastinating		SSC	Course	✓	0.3
Work-life balance	Start	SSC	Workshop	✓	0.15
Living life to the fullest		SSC	Course		-

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	ECTS
Courses A minimum of 1/3 of the required ECTS 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 for PhD students and postdocs		LC	Course	✓	var.
Dutch CEFR B1 and onwards		LC	Course	✓	var.
English CEFR B2 level and onwards		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-Middle	GSMS	Course	✓	2
Scientific Writing for biomedical/translational research	Start-Middle	GSMS	Course	✓	4

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
30+ tips "How to improve your research impact" (Dutch or English)		MB	Workshop		0.15
Academic Writing: Reduce Anxiety		GGS (CPS)	Course		0.2
Assertiveness now and at your new job	Middle	GGS (CPS)	Workshop	✓	0.2
BCN Poster Presentation - with poster (only for BCN PhD students)		GSMS	Meeting	✓	1
Content Creation for the PhD Science Communication Platform: "MindMint"		GGS (CPS)	Workshop	✓	0.3 / article
CV building and writing outside academia	End	GGS (CPS)	Workshop	✓	0.2
Interview skills	End	GGS (CPS)	Workshop	✓	0.2
Media Training	Middle	GGS (CPS)	Workshop	✓	0.2
Motivation letter writing outside academia	End	GGS (CPS)	Workshop		0.2
Negotiation Skills	Middle	GGS (CPS)	Workshop	✓	0.2
Networking for people who hate it	Start	GGS (CPS)	Workshop	✓	0.2
PhD Support in planning writing your thesis: practical project groups	Start-Middle-End	GSMS	Misc.	✓	-
Recruitment - How does it work?		GGS (CPS)	Workshop		0.2
Shape your Future, Academic CV Building	End	GGS (CPS)	Workshop	✓	0.2
Storytelling	Middle	GGS (CPS)	Workshop		0.2
Invited presentation outside institute		var.	Misc.	✓	0.4
Prize for best abstract/poster/presentation		var.	Misc.		0.5 / prize
Oral or poster presentation at a conference		var.	Misc.		0.4 / conference
Other Workshop / Symposium / Masterclass		var.	Misc.	✓	var.

* **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	ECTS
Courses A minimum of 1/3 of the required ECTS 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	Middle	GGS (CPS)	Course	✓	1

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
PhD Introductory Event	Start	UG	Event		1
Attending the annual PhD Day		UG	Event		1
Careers in Consultancy	Middle	GGS (CPS)	Workshop		0.2
Entrepreneurship	Middle	GGS (CPS)	Workshop		0.2
Intellectual Property: Becoming a Patent Attorney	End	GGS (CPS)	Workshop		0.2
Introduction to Careers Inside Academia		GGS (CPS)	Misc.		0.2
Introduction to Careers Outside Academia		GGS (CPS)	Workshop		0.2
Make it in the North: Outside Academia Training Opportunities for PhDs	End	GGS (CPS)	Workshop		0.2
Membership GSMS PhD council		var.	Misc.	✓	2 per year
Membership Research Institutes PhD council		var.	Misc.	✓	2 per year
Organizing a symposium / conference		var.	Misc.	✓	Var.
Other Workshop / Symposium / Masterclass		var.	Misc.		Var.
Personal branding: How to build and make the most of your personal brand		GGS (CPS)	Workshop		0.2
The Landscape of Post-PhD Career tracks		GGS (CPS)	Workshop		0.2
Academic Transfer: Toolbox for Career Opportunities after your PhD		GGS (CPS)	Workshop		0.2
Working in the Humanitarian Sector		GGS (CPS)	Workshop		0.2
Working Perspectives at a University of Applied Sciences (Hogeschool)	End	GGS (CPS)	Workshop		0.2

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	ECTS
Courses A minimum of 1/3 of the required ECTS 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	3	0.5
BCN Management Competences, Part 2 (for BCN PhD obligatory)	Start	GSMS	Course	3	1.5
Managing your PhD (obligatory)	Start	GSMS	Course	✓	2.5
The Empowered PhD: How to get beyond being a good student	Start	GGS (CPS)	Course	✓	0.3
Time Management Series	Start-Middle	UG	Course	✓	0.7
Developing your Leadership in Academia	Middle	GGS (CPS)	Course	✓	0.3
Patient Involvement for Researcher at UMCG		WIOO	Course		0.3

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
Scrumming and other project management techniques	Start	GGS (CPS)	Workshop	✓	0.2
Efficient Reading	Start-Middle	SSC	Workshop	✓	0.15
Team work: how to be your best possible team	Middle	GGS (CPS)	Workshop	✓	0.2
Other Workshop / Symposium / Masterclass		var.	Misc.		var.

* 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	ECTS
Courses A minimum of 1/3 of the required ECTS 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	CIT	Course	✓	0.5
Start to teach: Taking steps in your professional development as a teacher (Specifically for PhDs who will be actively teaching a course)	Middle	CIT	Course	✓	1.5
Start to supervise: for (new) PhD students with current or upcoming supervision tasks		CIT	Course	✓	0.4

	PREFERRED PHASE	PROVIDER	FORMAT	TRANSFERABLE SKILLS	ECTS
Activities* A minimum of 1/3 of the required ECTS must be obtained by conducting other PhD research activities or competence related activities.					
Teaching and supervision of students (at university level)	Middle-End	var.	Misc.		Depending on time invested
Tutor/mentor					
Lecture					
Coach master or bachelor scientific thesis					
Other Workshop / Symposium / Masterclass		var.	Misc.		var.
University Teaching Qualification (BKO) (Please note: this training is not covered by the GSMS training budget. Please contact gsms@umcg.nl about the registration of the BKO in your portfolio)		UG	Misc.		Depending on time invested

*Appendix PhD research or competence related activities

Please ensure that you **provide a clear description and proof of attendance** (if applicable) of the training activity you add to your portfolio in Hora Finita, If the GSMS cannot properly evaluate the training activity, it may be rejected, potentially resulting in failure to meet the certificate requirements.

COMPETENCE	ECTS
PhD research or competence related	
Workshop/Symposium/Master class	
≤ half a day	0.15 / meeting
> half a day - ≤1 day	0.30 / meeting
Fixed ECTS	Fixed ECTS
Lecture/Seminar series	Depending on time invested, max 2 ECTS
Research skills and knowledge	
Annual PhD meeting Research Institutes	0.30 / annual meeting
External Research group meetings*	Depending on time invested, max 2 ECTS
Journal clubs	0.10 / journal club, max 2 ECTS
Attendance scientific conferences:	
Conference of 1 day	0.30
Conference of 2 days	0.60
Conference > 2 days	1.00
Oral or poster presentation at conference	0.40
Granted or submitted project proposal – main (co-)applicant:	
< 10,000 Euro	0.50
10,000 <> 30,000 Euro	1.00
30,000 Euro	2.00
Research stay at another institute	1.00 per week, max 4 ECTS
Supervised reviewing of manuscripts	0.50 / manuscript
Travel grant proposal	0.15

External Research group meetings are gatherings with departments other than the one you are affiliated to. Within these meetings, research is discussed and/or presented. Research gatherings from the consortium where you are active in, do not count since they are part of your PhD project management.

Please ensure that you **provide a clear description and proof of attendance** (if applicable) of the training activity you add to your portfolio in Hora Finita, If the GSMS cannot properly evaluate the training activity, it may be rejected, potentially resulting in failure to meet the certificate requirements.

COMPETENCE	ECTS
Communication	
Oral or poster presentation at a conference	0.40
Invited presentation outside institute	0.40
Prize for best abstract/poster/presentation	0.50 / prize
Professional Development	
Attending the annual PhD Day RUG	1.00 / event
Attending PhD Introductory Event RUG	1.00 / event
Membership Education Committee	0.45 / year (secretary: 0.65 / year)
Membership GSMS PhD council	2.00 / year
Membership Research Institutes PhD councils	2.00 / year
Organisation of symposium/conference	Depending on time invested (28 hrs per ECTS)

Teaching At university level

Teaching / supervision of students:

     Tutor/mentor

     Lecture

     Coach master or bachelor scientific thesis

Depending on time invested (28 hrs per ECTS, max. 5 ECTS)

rug.nl/mu/gsms