

IGSSE Qualification Program Guide

At IGSSE, every doctoral researcher is member of a program pillar, i.e. IPT, INW, JADS and UM DTN. The specific elements of the qualification program differ depending on the respective funding program.

The elements of the IGSSE qualification program reflect and support the school's interdisciplinary, international, and inter-sectoral orientation. Among others, members of IGSSE will benefit from international experience and exchange, interdisciplinary scientific networks, and training on optimizing collaboration within the project team.

The IGSSE qualification program consists of:

- Standard requirements set by the TUM Graduate School (TUM GS), incl. [subject-specific qualification](#)
- IGSSE cross-program elements
- Program-specific elements

The completion of the IGSSE qualification program is mandatory for IGSSE doctoral candidates to pursue a doctorate at TUM, and all elements must be accomplished before submitting the doctoral thesis.

International Project Teams (IPT)	Innovation Networks (INW)	Joint Academy of Doctoral Studies (JADS)	EIT Urban Mobility Doctoral Training Network (UM DTN)
TUM GS Kick-off seminar			
IGSSE Onboarding:			
IPT Kick-off meeting	INW Kick-off meeting	JADS Kick-off meeting	UM DTN Kick-off meeting
6 semester hours (SWS) of subject-specific qualification:			
Subject-specific and subject-related courses	Subject-specific and subject-related courses	Subject-specific and subject-related courses (incl. cohort-specific training)	Subject-specific and subject-related courses (e.g. elements of the DTN Innovation & Entrepreneurship course package)
Program-specific element(s):			
Organizing a small international event	2 semester hours of INW-specific courses	Cohort seasonal school JADS Symposium x2	Annual DTN Forum x2 DTN Innovation & Entrepreneurship course package
External Phase:			
3 months international research stay	3 months (inter)national <i>i-change</i> research phase	12 months research stay at Imperial College London	4-6 months international placement
Interim Evaluation:			
Feedback discussion	Feedback discussion	Feedback discussion (incl. Project Report)	Feedback discussion
i ³ Workshop			
Project Team Toolbox			
IGSSE Forum x2			
Science Communication			
Min. 1 peer-reviewed publication			

Cross-program elements (white lines) are the same for all IGSSE doctoral members. Program-specific elements (colored lines) are different for IPT, INW, JADS and UM DTN.

IGSSE cross-program elements

- **i³ Workshop**
1-2 day different thematic workshops organized by IGSSE, providing a variety of interdisciplinary, international and inter-sectoral impulses on e.g. ethical foundation of science, good scientific practice and responsible leadership. Topics vary every year.

- **Science communication**
Interactive outreach activity to an audience outside of academia, e.g. presentation in a local school, talk in a museum, etc. The activity needs to be discussed with and approved by IGSSE beforehand: doctoral candidates must submit a concept of max. 500 words and highlight goals, expected outcomes, strategies to measure impact and interact with the audience, as well as describe general details of the activity (e.g. time and place). Upon completion of the activity, doctoral candidates will collect and share the relevant documentation (e.g. slides, photos, agenda of the event, survey results, participants list with signatures, etc.) with IGSSE, together with a short report of max. 500 words to reflect on the activity's challenges, outcomes and takeaways. In case you collaborate with more members, please clarify your role, tasks and responsibilities in the activity. Both the concept and the report must be sent to igsse-qualification@tum.de and the respective program.

- **IGSSE Forum**
3-day annual meeting of all IGSSE members organized by IGSSE at the TUM Science & Study Center of Raitenhaslach, enhancing cross-disciplinary networks and perspectives through talks, workshops and team-building activities. To be attended at least twice by IGSSE doctoral candidates.

- **Project Team Toolbox**
½ day training organized by the IGSSE Office focusing topics like efficient work and communication strategies, facilitating project team's internal collaboration across international and interdisciplinary boundaries. The Project Team Toolbox usually takes place within the first year of the doctorate.

- **Feedback discussion**
The standard procedure for the feedback discussion (as outlined in the TUM GS statute and Doctoral Regulations 2021) has to be followed in order to receive the scholarship extension with IGSSE. 18 – 24 months after the start of their doctorate, doctoral candidates are asked to:
 - hold a university-public presentation in a seminar OR submit a written interim report on the progress of the scientific work,
 - do a counselling interview with the mentor,
 - submit an updated supervision agreement,
 - If applicable, submit an updated scholarship contract.

Notes on the subject-specific qualification

During the course of the doctorate, doctoral candidates must participate in a min. of 6 semester hours (SWS) subject-specific and subject-related courses. Doctoral candidates individually select courses beneficial for their doctorate, which might include e.g. training and retreats at the respective research group, workshops, symposia, seasonal schools.

Program-specific elements

These elements vary depending on the program doctoral candidates belong to. Please refer to the program-specific explanatory notes for further information.

Notes on the written external phase report

At the end of your external phase, you are required to write a short report. It should consist of at least one DIN A4 page and be written in English. Please make sure to include the following points:

- Host institution and name of the academic host
- Dates and length of your stay
- First contacts with the host institution
- Scientific aims and, if applicable, scientific achievements (e.g. joint publications) and/or formation of solid contacts (e.g. for future projects)
- Administrative aspects (e.g. requesting a visa, finding accommodation)
- Cultural and social aspects (e.g. integration into the research group)

The report must be sent to your program manager. You are free to choose on the layout and include pictures.

The IGSSE management team is happy to help with any questions about the qualification program:

International Project Teams (IPT)	ipt.igsse@tum.de
Innovation Networks (INW)	inw.igsse@tum.de
Joint Academy of Doctoral Studies (JADS)	jads.igsse@tum.de
EIT Urban Mobility (UM DTN)	eit-um.igsse@tum.de
General enquiries on the IGSSE QP	igsse-qualification@tum.de
General enquiries on IGSSE events	igsse-events@tum.de

International Project Teams (IPT)

Explanatory notes on the organization of a small international event and the external phase

International Project Teams (IPT)	
TUM GS Kick-off seminar	
IGSSE Onboarding: IPT Kick-off meeting	
6 semester hours of subject-specific qualification: Subject-specific and subject-related courses	
IPT-specific element: Organizing a small international event	
External Phase: 3 months international research stay abroad	
Interim Evaluation: Feedback discussion	
i ³ Workshop	
Project Team Toolbox	
IGSSE Forum x2	
Science Communication	
Min. 1 peer-reviewed publication	

Organizing a small international event is an invaluable opportunity for doctoral candidates to enhance their academic and professional skills. By taking on this responsibility, doctoral candidates will develop leadership, communication, and project management, essential for their future careers. Moreover, coordinating an international event will foster collaboration and networking among peers and experts, enriching the academic experience and broadening perspectives.

Doctoral candidates may either organize the event independently, or collaborate with another candidate from the same/other IPT projects, in coordination with the supervisor(s). For its organization, each candidate is funded with a budget of 1.000 Euro. Examples may include international seasonal schools, symposia, lecture series, etc. Interdisciplinary topics shall be preferred. At least 25% of the participants should be international and not belong to TUM. The event might involve international IPT or Euro-Tech Alliance partners. At the end of the event, doctoral candidates shall submit a written report to the IGSSE. In case of events organized collaboratively, it is necessary to clarify in the report how were responsibilities, roles and tasks divided.

IPT doctoral candidates will engage in an external research phase at one or more international institutions. The external phase may be structured either as a contiguous three-month period or be segmented into smaller intervals. Doctoral candidates must submit to the IPT program manager both an invitation and a motivation letter prior departure. At the end of the research stay abroad, a short written report should be submitted to IGSSE.