

SHORT GUIDELINE TO THE IRTG FOR DOCTORAL STUDENTS

What is the integrated Research Training Group (IRTG)?

The iRTG is a DFG-funded Research Training Group run jointly at Martin Luther University Halle-Wittenberg (MLU) and Leipzig University (UL). Its purpose is to provide a learning environment for doctoral students, aiding them in their personal development towards becoming active scientists. It brings together international and interdisciplinary working doctoral students of 18 different research groups, a faculty of 20+ professors, senior scientists, researchers and post-docs working in the collaborative research program SFB/TRR 102 funded by the German Research Foundation (DFG). It also integrates interested doctoral students from outside of the SFB whose thesis topic is related to the theme of the SFB.

What is the aim of the iRTG?

To aid and support the development of an individual research profile of the doctoral students and their independence through provision of a structured Doctoral Program for advanced training. To enable networking of the members through establishing contacts to fellow students, scientist and guest at MLU, UL and beyond to strengthening the students research outcome. To give the students a chance to receive new input and discussion of their research. To grant benefits for members through interdisciplinary training in frontier areas of physics, chemistry and the biosciences at MLU and Leipzig University. To issue a certificate for the participation in the IRTG, after the necessary amount of credit points has been accumulated.

What is necessary for the iRTG concept to work?

Three elements are essential:

- (1) the individual research on the given thesis topic, which is in the focus of attention
- (2) the support of the work group in which the doctoral student is embedded, with close interactions to the group leader as well as progress reports, journal clubs/literature seminars, discussions with the fellow group members (research or internal training within the individual field of research)
- (3) the structured interdisciplinary (or "external") training program of the iRTG. Based on the students Personal Qualification Plan (PQP, available on the iRTG web page) students will benefit from scientific and additional qualifications, training, and networking. To establish the milestones in research as well as additional training during the thesis, students are required to plan and think ahead. For documentation and to aid this process they set up an individual research and training plan, their PQP – to be discussed and updated twice a year with their research supervisor and with their chosen mentor. A formal supervision agreement specifies the rights and duties of the doctoral student, its supervisor and mentor and is signed by all of them (available on the iRTG web page)

How does the mentoring work?

Together with the supervisor the student will choose the mentor, which can be a group leader from within the collaborative research program, but must not. The mentor should be scientific independent but somewhat familiar with the research topic, to allow for independent, scientific and personal matters feedback. The mentor will provide additional guidance, which should bring in the outside view to the ongoing project and could serve at the end as second thesis examiner for the university (Zweitgutachter). The student and the mentor should meet at least once a year and discuss the progress of the project. In preparation to this, a brief research summary (5-10 pages, a form will be available on the iRTG web page) should be handed over to the mentor. The mentor will be available and should be approached by the mentee whenever questions and the need for feedback arise. Together with the Personal Qualification Plan (PQP) the mentoring will provide a framework to the student to reflect, plan and allocate the milestones and time during their thesis.

Who should become a member of the iRTG?

We are looking for doctoral students, who are highly interested in research on natural and synthetic polymers within an interdisciplinary and international research environment. The iRTG has a strong focus on physics and physical techniques to investigate polymer and soft matter structure formation. Other research topics also include macromolecular chemistry and biosciences. If you have lots of curiosity, interest in interdisciplinary discussions, English language knowledge (as it is the official language - language training is offered too) and are prepared to look beyond the rim of one's tea cup, then you should not hesitate to apply for membership.

How to become a member?

All students working on projects of the SFB/TRR 102 become automatically members of the iRTG. By filling out the registration form, the first version of their PQP and signing the supervision agreement they will be registered. Doctoral students working in related areas of soft matter physics and chemistry being funded from different sources at MLU or UL are very much encouraged to become associated members of the iRTG (aiming to earn its certificate). Just fill in the registration form as well as writing a few lines what you are currently working on and why it would be advantageous for you to participate. Send it to the SFB Office. The supervising board and the head of the iRTG-program will decide upon the formal acceptance. Accepted students become joint members of the graduate academies in Halle (InGrA) and Leipzig (RA Leipzig), allowing to access and make best use of course programs at both institutions. If you have just finished an MSc degree in physics and chemistry as well (in exceptional cases) in biosciences wanting to pursue a doctoral degree within the scope of the SFB/TRR 102, you should apply and follow the rolling recruitment guidelines, as outlined on the web page.

What is the iRTG Program made off?

- (1) Core or signature activities of the SFB/TRR 102: the SFB Colloquia and the Polymer and Soft- Matter Seminar series, ring lectures, regular doctoral student seminars and workshops
- (2) Additional Qualification Program: courses or workshops organized by the iRTG or InGrA, RA Leipzig or external institutions focusing on scientific and personal skill development, language and intercultural training
- (3) Advanced Training Modules (ATM): blocked, methods-oriented courses addressing specific research topics
- (4) Supplementary study: lectures or modules from the official course curriculum at MLU and UL
- (5) Additional elements can be external research experiences by doing project work in outside laboratories, teaching, participation in external research schools and active participation by giving talks (one non-thesis related)

Aside of the following elements listed, students are very much encouraged to suggest additional formats or topics based on their needs which can be taken up and become part of the certificate.

How are different iRTG program elements credited?

From the different courses offered by the iRTG or other institutions, doctoral students need to cover a mix of elements not focusing on just one area. For every course or lecture taken, credit points (in short CP) are attributed. These credits roughly follow the ECTS (European Credit Transfer System) rules, as in regular BSc and MSc studies at German universities: 1 credit is equivalent to about 30 h of workload, with about 50% of the time being contact time at the course and the rest self-study and reading prior to or after the course. To graduate at MLU and earn the iRTG certificate you have to collect at least 20 CP total; at UL at least 10 graded and 10 non-graded credits (following the rules of the RA Leipzig, which allow Leipzig doctoral students to change from a final Rigorosum exam to a Disputation). Research-related CP, in particular lectures and advanced training modules can be graded and certified by request to the instructor (form available on the iRTG web). The number of CP issued and certified for a specific element is decided by the iRTG steering committee on the basis of the course content, certificate and its course description. A summary table of CP points is given below.

External training program	to be organized by	CP creditable for the iRTG certificate	
		individual CP credited	min. CP needed
Active Participation			
Presentations in the doctoral students seminar, on workshops/retreats or on conferences	student/iRTG	1 CP	4
Signature Activities			
SFB Colloquia, Polymer & Soft Matter Seminar	SFB	ca.30h presence equal to 1 CP	2
iRTG Doctoral Students Seminar	iRTG/students		
SFB Ring Lecture	SFB		
SFB Spring Retreat, Fall Mini-Workshops	SFB		
Advanced Training Modules (optionally graded)			
Blocked methods training	iRTG/SFB groups	1 CP / 2 CP with successful exam	2/4
Supplementary Studies (optionally graded)			
Lectures or full modules from the MLU & UL curricula (1 SWS = 15 h lecturing)	MLU, UL	1 CP (1-2 SWS) 2 CP (3-4 SWS)	2
Additional Qualifications / Soft Skills *)			
iRTG weekly courses	iRTG	1 CP	3
iRTG or InGrA/RA Leipzig workshops	iRTG InGrA/RA L	1 CP	
Teaching experience	student	1 CP	1
Additional Student Activities *)			
External research experience	student	depends #)	
External courses, workshops, schools and excursion	student	depends #)	
Internal organization of doctoral student workshops, seminars etc.	student/iRTG	depends #)	

*) for crediting other activities like workshops at InGrA, RA Leipzig or beyond, contact the SFB office

#) depends on scope and duration

Total CP number needed to earn the certificate:

MLU:20 CP & at UL: 10 CP graded (scientific courses related to the thesis topic), 10 CP non-graded (other qualifications)

How is the registration and the bookkeeping of CP for different courses organized?

For iRTG courses follow the registration link provided on the iRTG web pages. Once you have registered and successfully participated, CPs will be automatically credited. In case of additional student activities and courses or workshops organized by InGra, RA Leipzig or other institutions each doctoral student registers on his own, but passes on the earned certificate to the SFB office in order to document the credited CPs. In case of doubt or questions concerning the creditability please contact the SFB office ahead of time.

How and where is the record of courses and the earned CP kept?

Twice a year the iRTG students should hand in their updated PQP to the SFB office for documentation after the meeting with their supervisor and mentor. Once the planned courses are successfully completed, earned CP will be automatically added to the list and become part of the updated PQP handed back to the student prior to the next half-year meeting or on request. Graded CPs are certified by the individual instructor on a form available on the iRTG web, in the SFB office and being part of this package. Once sufficient CPs have been earned, a certificate will be handed over to the student after successful completion of the doctoral degree. A listing of achieved CPs can be issued at any time on request.

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