

# Guidelines for making a PhD study plan (CMMW, January 2019)

## Project description

The description should be one to three pages, written by the PhD student and approved by the supervisor. The description may be included in the form, or attached as an appendix.

- Start with an introduction describing the project in a broader context.  
Give the background and motivation for the topic of the PhD project. The project's background and motivation must be substantiated with relevant references to scientific state-of-the-art knowledge including peer-reviewed publications.
- Describe the objectives and deliverables of the PhD project.  
Please note that it is the PhD project that must be outlined. Explain how the PhD project and goals advance state-of-the-art. Some PhD projects are part of a larger project with many participants. The description of the larger project is relevant only as background information and can be attached as an appendix.
- Describe how you plan to reach the objectives.  
Please give details of the planned methods and procedures (experimental or other forms of empirical methods, numerical and/or mathematical). It is suggested that the research project is broken into smaller sub-projects so the solution of a sub-project can serve as a milestone in the time schedule.
- Include a list of references (at the end of the project description) to the relevant scientific state-of-the-art knowledge used in the background and motivation of the project.

## External research stay

The PhD student should enter into active research environments outside DTU as part of the programme, either through stays at other institutions of research or private research companies etc. - primarily foreign ones. This also applies to industrial PhD students. By visiting another research environment, the PhD student can expand his/her network, participate in PhD courses, author articles and/or carry out research and thereby collect additional contributions to the research project. DTU recommends that an external research stay lasts for 3-6 months. Research stays down to one month can be approved and these may even consist of e.g. four visits of one week to the same organisation.

**In order to ensure that the PhD students at DTU enter into active research environments outside the university, the following new rules apply to all PhD students enrolled as of 1 January 2018:**

- The PhD committee will reject study plans that do not contain a plan for external stay Information about research stay must be entered in the half-year reports - either *planned*, *not planned* or *a dispensation*
- Fourth half-year report must contain information on *completed stay*, *planned stay* or *a dispensation*
- A *dispensation* may be granted in cases of personal or family related obstacles. The PhD school leader based on a recommendation from the main supervisor and the PhD student grants the dispensation.

For PhD students enrolled **before 31 December 2017**, the following rule applies: due to special circumstances, some PhD students may not be able to complete an external research stay. In these cases, the PhD student must state in the half-year reports which alternative active local research environments he/she takes part in.

Read about planning the research stay, tax liability, work and residence permit when posted abroad on DTU Inside (access only for employees and PhD students at DTU).

For PhD students enrolled as joint or double degree students, the stay at the partner university counts as the required external research stay.

## **Course requirements**

The course load should correspond to about 30 ECTS credits (1 ECTS credit corresponds to about 28 working hours and too many points will be sanctioned).

Minimum 15 ECTS credits should be at PhD level. If less is at PhD level, justification should be given. No bachelor courses can be approved unless a justification is given. Special courses may not exceed 10 ECTS credits in total.

Up to 10 ECTS credits need not be specified. However, we recommend that plans for how to fulfil the course requirements be stated.

### **DTU courses**

- Remember to specify course numbers.

### **Special courses**

Descriptions of special course(s) should:

- Give a detailed description of the course content incl. bibliography.
- Look for inspiration in the course descriptions that already exist in the Course Database.
- Specify the name of the course organizer.
- Estimate the ECTS points based on workload (1 ECTS=28 hours)
- Indicate the time frame of the course, with start and end date.
- Provide details about the form of exam.
- Note that the topic of the special course cannot be too close to the topic of the PhD project i.e. a literature study which needs to be done anyway will not be accepted
- You cannot mix Scientific Dissemination activities with the earning of ECTS points i.e. you cannot earn ECTS points for writing a paper (unless it is one of the already existing courses like "How to write a Scientific paper").
- Special courses cannot exceed 10 ECTS points in total.

Look for inspiration in the course descriptions that already exist in the Course Database.

### **External courses**

External courses, online courses and all DTU courses that are not in the DTU course base: Remember to include the course descriptions, which must be printed directly from the course provider's website. Indication of level, workload and ECTS credits must be stated.

### **Scientific dissemination and department work**

Please refer to the general guidelines on PhDigital.

### **The time schedule**

The time schedule should be prepared thoroughly and include:

- Literature study
- Courses
- Teaching and other forms of compulsory work
- Dissemination activities, e.g. presentations at conferences and paper publication
- External research stay(s)
- Major research activities
- Expected milestones
- Time for writing

It is important that the time schedule is realistic. It is important to allocate some time during the first year for the research project; also it is important that most time in the final year is allocated to the research project. The time schedule should be prepared in a Gantt chart format.