

DocEnhance Data Stewardship Course: Executive summary and teacher guide

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Executive summary

UiT The Arctic University of Norway, in cooperation with the task 2.3. working group of the EU-funded DocEnhance project (2020-2022), has developed a course in Data Stewardship, in accordance with the specifications in the project proposal. The course consists of three modules, all openly available with CC BY 4.0 license in the DocEnhance Moodle LMS. The three modules are found as three separate courses in the DocEnhance platform at <https://courses.docenhance.eu/>. Anyone is free to do the Module 1 course without creating an account and logging in. To do the full course with all three Modules, and to earn credits, the courses need to be organized by an HE institution, and participants need to be registered and enrolled.

Module 1 is a MOOC that goes through theory and best practice within the many steps and aspects of data stewardship. The module is composed of an introduction, nine thematic sections and a multiple-choice exam. The MOOC contains video lectures, text, and self-paced activities, and includes required and recommended readings. Having passed the Module 1 exam is a requirement to participate in Modules 2 and 3.

In Module 2 the participants team up for sessions with assignments to be done as groupwork. The groupwork needs to be organized at local institutions, by local teachers and administrative staff. The module is composed of teaching material for six three-hour long thematic sessions, from which the teachers can select and adapt as they see it fit. The module also contains an exam assignment.

In Module 3 the participants should put their acquired data stewardship knowledge to practice in cooperation with partners in the non-academic sector (e.g. business or public service office). The module is composed of advice on how to get in touch with the non-academic sector, and possible assignments participants can work on. The module also contains an exam assignment.

Organisers of the course may apply to the applicable authority to have the course yield ECTS credit points or other type of credits. Passing all three exams will be a requirement to get the DocEnhance Data Stewardship certificate.

Reference: DocEnhance courses website: <https://courses.docenhance.eu/>

Teacher guide

The DocEnhance Data Stewardship Course is primarily made for PhD candidates, to give them a basic understanding of how to manage their data in their PhD project in accordance with best practice and the concept of FAIR¹) data. The course should preferably be done at an early stage of a candidate's PhD project. That way, the candidates can benefit from the knowledge acquired from the theory and practical assignments of the course, as they proceed in their PhD project. Putting their acquired knowledge to practical use will give the best learning outcome from this course. However, the course may be very useful also for candidates who have progressed beyond the first year of their project.

The course with its three Modules is available in the DocEnhance Moodle LMS, at <https://courses.docenhance.eu/>. Note that this site lists a number of courses, so make sure you find the right course. The Data Stewardship Course includes three modules, and each module is actually a separate course in the DocEnhance Moodle.

If desired, the course content may be exported and integrated into your local Moodle LMS. Files with a copy of the course, which you need to import the course to your local Moodle, are available in the *Welcome* sections of the three modules, and these will be updated on a yearly basis. Please contact support@docenhance.eu for help on how to do this.

Notice: If you choose to run the course using the DocEnhance Moodle LMS (and *not* copy the course into your local LMS), then all teacher-participant communication must take place outside the DocEnhance Moodle, e.g. in your institutional LMS.

Course content

Below is a brief description of the course and the content of each Module, and instructions on how to run the course locally. The course is made up of three modules:

Module 1

Module 1 is a MOOC that walks through theory and best practice of data management in video lectures and texts, organized in topical sessions. For each session there is a list of required and recommended readings. Each session also includes a quiz, where the candidates may test their acquired knowledge. In the end of Module 1 the candidates may do a multiple-choice exam. There is a minimum required score to pass the exam and qualify for the Module 1 course certificate. Passing the Module 1 exam is a requirement for moving on to Module 2 and eventually Module 3.

In order to do the exam for Module 1, participants need to sign in to Moodle and also enroll in the Module 1 MOOC (see instructions below). Each participant goes through Module 1 individually. No teacher needs to be involved in this module. If participants have questions regarding content and technical issues, there is contact information available in the MOOC.

As a teacher you may log in as guest to see the content. If you wish to have access to the quizzes and the exam questions, you need to sign in and enroll (see instructions below).

Module 2

In Module 2 the course participants team up for sessions with assignments to be done as groupwork. They are expected to apply the knowledge acquired in Module 1, and in addition, they are expected to use their own research project as source particularly in suggested pre-assignments. The sessions need to be organised and monitored by local teachers (or other type of personnel).

The local teachers also need to select which course material to use. Content for six half-day long sessions is offered on the platform, on topics from the various stages in the research data

management lifecycle. Published with a CC BY 4.0 license, teachers have the possibility to modify and redistribute the available material as they wish. All sessions come with elaborated teachers guides, and most assignments come with discussion guides or detailed solutions.

Module 2 is meant for the local teachers, so participants do not need to engage with Moodle when doing pre-assignments and groupwork. All assignments and guides are published as PDF files that teachers should download and distribute to the participants.

Module 2 contains a suggested exam assignment, which also comes with a teacher guide.

All content of Module 2 is available with guest log in (see instructions below). No sign in or enrollment is necessary.

Module 3

Preparing PhD candidates for a career outside academia is a core objective of the DocEnhance project. In Module 3, the candidates' acquired data management knowledge will be put to practice in cooperation with a business or public service office.

Module 3 must be organised by local teachers, but also local stakeholders – i.e. business enterprises or public service offices – should be recruited for collaboration. A possible incentive for these stakeholders is that skilled PhD candidates can serve in short-term internship and do assignments that yields real payoffs for them.

The course material for Module 3 contains advice on how to involve the non-academic sector, possible assignments that candidates can work on, and two possible exam assignments. It is meant for the local teachers, so the participants do not need to engage with the Moodle platform when carrying out the Module 3-related activities. Furthermore, the local teachers are encouraged to add ideas and experiences into the Community Resource Bank, located in Module 3 of the DocEnhance Data Stewardship Moodle (direct link: <https://nettskjema.no/a/196390#/page/1>). This will help developing the module into a useful resource for institutions organising the DocEnhance Data Stewardship course in the time to come.

All content of Module 3 is available with guest log in (see instructions below). No sign in or enrollment is necessary.

How to log in to Moodle

The course, with the three modules (and thus three Moodle instances), are found on the DocEnhance platform at courses.docenhance.eu.

For login to the Moodle there are a few alternatives:

- 1) Click 'Log in as a guest': This gives access to the online content of the courses, but not to the quizzes and the exam of Module 1.
- 2) Already have an account?
 - a. This is an option login directly to the DocEnhance Moodle
 - b. If you do not have an account to the DocEnhance Moodle, you may create an account by clicking "Create new account"
- 3) Login with PhDHub:

Click 'Login with PhDHub' and next click 'MyAcademicID'

 - You may then login with Google or eIDAS.
 - Or you may login through your institution, given that your institution has enabled login through MyAcademicID²⁾

After login, course participants need to enroll in order to earn course certificate and possibly ECTS or other types of credits.

- To enroll, click the gear icon in the top right corner.
- Click 'Enroll me in this course'.

More information and help

More information about the content and how to run the Data Stewardship Course can be found in the three different modules, see sections "Welcome to Module 1 (2, 3)". You may also contact the course's support service:

For questions on how to log in and other technical issues, please contact support@docenhance.eu

For questions or comments on the content of the course, please contact researchdata@uit.no

Assessment

Each module contains an exam assignment, and participants need to pass all three exams to be eligible for the DocEnhance Data Stewardship Course certificate.

- Module 1: A self-paced 30 questions multiple-choice exam, where a minimum score of 80% is required to pass. The participant has three attempts. When the exam is passed, a Module 1 certificate is automatically generated and should function as proof that the participant has successfully done the first module.
- Module 2: A text of 1000–1500 words where the participant applies his/her knowledge from Modules 1 and 2 on a topic related to his/her own research project. This assignment is evaluated as passed/not passed by the local teachers (and potentially an external censor, if required by the local institution).
- Module 3: A report of 1000–1500 words based on a practical assignment carried out in collaboration with the non-academic sector. If the local teachers have been unable to find relevant collaborating stakeholders, the candidates could as an alternative be asked to write a make-belief job application (1000-1500 words) to a stakeholder of their choice, with focus on the participant's research data management skills.

Course certificate

The DocEnhance project has a template that the institution may use to create the Data Stewardship certificate. You may not remove elements but you may include the local institution's logo and add the name of the local signatory.

You may also alter the number/type of credits (ECTS or other). Note that if this is not applicable in the local institution, you may remove this and add corresponding information.

The template can be downloaded from the *Welcome* section of Module 3.

Workload and ECTS credit points

The estimated workload for the Data Stewardship course is as follows:

- Module 1: 18–20 hours videos, required readings, quizzes
- Module 2: 8 hours pre-assignments, 16 hours group work (two full days)
- Module 3: 16 hours (two full days)
- Exam
 - Module 1: 4 hours

- Module 2: 8 hours
- Module 3: 8 hours
- Total: Approximately 80 hours

1 ECTS corresponds to 25–30 hours. Given the estimation above, we recommend that participants receive 3 ECTS upon completion of the course, if applicable. If you decide to reduce or augment the number of hours, you may modify the number of ECTS accordingly on the Data Stewardship course certificate (see above).

If you don't plan to run the complete Data Stewardship course (i.e. with the three modules and issuing of the official DocEnhance certificate), you are free to consider how to assess the participants' knowledge. One option may be to ask the participants to write a paper about the usefulness and relevance of the course with regard to their own research project.

Evaluation

The Data Stewardship course comes with two evaluation forms created using [Nettskjema](#), a tool for designing and managing data collection using online forms. There is one form for the participants, and one form for the teachers. All answers are anonymous.

The evaluation form designed for the participants can be accessed on this link: <https://nettskjema.no/a/283837>. The form is also located in the end of Module 1, and in the *Welcome* section of Modules 2 and 3. We strongly recommend that participants carry out the evaluation when all modules and exams they are expected to do are completed.

Note that evaluations submitted via Nettskjema will be available only to the course developers at UiT The Arctic University of Norway. If you want to have access to evaluations from your participants, you need to create your own version of the evaluation form, using a tool you have access to. You are free to reuse content from the existing evaluation form, but please then credit the course developers as follows:

UiT The Arctic University of Norway. (2022). *Evaluation of the DocEnhance Data Stewardship course* [Evaluation form]. Last updated 2022-09-28, licensed under [CC BY 4.0](#). Nettskjema.no. <https://nettskjema.no/a/283837>

There is also an evaluation form designed for the local teachers/teacher teams, available on this link: <https://nettskjema.no/a/322888>. The course developers at UiT The Arctic University of Norway will use feedback from participants and teachers to improve the quality of the course. This is an evaluation form for all the modules. If you have been teaching as a team, we kindly ask you to fill out one evaluation form per team.

How to cite the DocEnhance Data Stewardship course

UiT The Arctic University of Norway & DocEnhance. (2023). *Data Stewardship* [MOOC]. Last revised 2023-04-01. Licensed under [CC BY 4.0](#). <https://courses.docenhance.eu/>

Endnotes

- 1) See <https://www.go-fair.org/>
- 2) If your institution is not listed, you can ask your IT department to enable login through MyAcademicID.