



# Benchmarking of the Nursing Program at Dalarna University

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## *Quality review*

This report presents the result from a Benchmarking-project within the Nursing Program at Dalarna University 2012. Local team members are Jan Florin, Marie Elf, Tobias R Feldreich, Maria S Engström and Sofia Olovsson. Responsible for the project and a member of the Local team/Manager of the nursing Program; Inger L Santesson

# Benchmarkingproject – Nursing program Dalarna University, autumn 2012

## Introduction

The separate steps in the benchmarking project is here summarized by providing descriptions of the information generated so far in the evaluation process. Within each area and benchmark following information is provided;

- Information regarding the initial Quick-scan 1<sup>st</sup> june 2012
- Actual feedback provided from EADTU/reviewers, score 38.38
- Comments from the Local team/Nursing program at Dalarna University – sep-nov 2012
- Additional information – links, documents, files etc.

The scanning responses were in some cases initially deliberately valued quite low in order to receive constructive feedback for improvement. The text now gives descriptions and arguments which might indicate a higher quality. The total set of benchmarks is described to give a complete picture to the reader of the perceived quality.

## STRATEGIC MANAGEMENT

1. The eLearning strategy should be embedded within the teaching and learning strategy of the institution.

initial answer: **Partially Adequate**

### Feedback:

*The eLearning strategy of the institution should include:*

*Prioritisation of eLearning by the university within its teaching and learning strategy*

*Measures to assessing the impact of eLearning at the university (on administration procedures, student data, teaching and learning...)*

*Main drivers for eLearning in the university (rector, deans, staff, students...)*

### Comments:

The institution (Dalarna University) has a well developed eLearning strategy, which is integrated into the overall institution development process, quality improvement work and educational strategy. A special department responsible for eLearning called Next generation Learning (NGL) [www.du.se/ngl](http://www.du.se/ngl) has been running since 2002. The institution is developing a new educational strategy in which eLearning goals and strategies are central issues. As an example the strategy states that continuous quality assessment should be performed. The development towards OER (open education resources) is also mentioned in the strategy. NGL regularly conducts seminars and workshops where issues of eLearning are addressed.

The geographic location of Dalarna University has accelerated the development and improvement of eLearning education. Approximately 65 % (12 000) of the students at the university are studying in an eLearning environment, and the university strategy is driven by three important principles:

- improved interaction between teachers and students
- a superior and user-friendly technical environment in which pedagogical ideas are the focus
- the stimulation of students to become more focused and responsible for their learning activities and outcomes

The university has been successful in adopting new technologies and strategies for eLearning and the efforts have contributed to the recognition of the university as a well-known eLearning university on both the national and international levels and have facilitated regional development by offering courses and programs to students despite distances.

The NGL centre has systematically worked to implement and develop new techniques and eLearning pedagogy. The vision of NGL is that learning is based on collaboration and should be created from the perspectives of individual students, regardless of their learning styles, life situations and reasons for studying. The research section of the NGL program consists of numerous activities that are focused on eLearning and a research program called **technology-mediated knowledge processes** has recently started. The research program is cooperation between Dalarna University and Örebro University. Dalarna University, NGL-centre also arrange international annual eLearning conferences.

Besides activities connected to research, NGL has a well established development program in which there are possibilities for staff to apply for funding and other resources for eLearning quality improvement projects. The Benchmarking project in Nursing is financially supported by this fund.

We have identified some potential development areas related to overall eLearning strategies such as to strengthen the link between the institutional education strategy and the Nursing department's operational plan. The institution's education strategy in which eLearning is obviously a big part needs to become more visible in the action plan in Nursing. In addition, the institution and the academic departments need to monitor of the institutions eLearning impact on learning, teachers use of technology and students experiences.

Documents:

<http://www.du.se/en/About-Dalarna-University/Policy-documents/>

<http://www.du.se/en/NGL/>

2. The institution should have eLearning policies and a strategy for development of eLearning that are widely understood and integrated into the overall strategies for institutional development and quality improvement. Policies should clearly state the user groups and include all levels of implementation, infrastructure and staff development

initial answer: **Not Adequate**

**Feedback:**

*It is recommended that institutions have a strategic plan that forms the uppermost tier in a planning hierarchy and will shape the plans of academic, administrative and operational units of the institution.*

*That strategic plan has to be regularly monitored, evaluated and revised in line with experience and developing requirements.*

*The strategic plan should encompass a vision for the use and development of eLearning within the institution and provide a timescale for the achievement of strategic goals.*

*A low score against this benchmark may indicate that the institution's approach to eLearning is not integrated within its overall planning processes. Action may be required by institutional leaders to address the issue.*

**Comments:**

There is a group of staff responsible for formulating, evaluating and developing policies and plans according to eLearning (NGL center mention above). eLearning and NGL is a well established concept at the institution level but operational strategies are not fully implemented at academic department level. Thus the institutional strategic plan and academic strategic plans are not fully consistent. This is an improvements area to take on in the future. The institution is developing a new educational strategy with eLearning as the main thread throughout the strategy. The Nursing department needs to integrate the visions and ideas within the education strategy in their own planning process in a more advanced way with clear outcome measurements. The implementation of new eLearning methods and approaches are often initiated from the individual departments with support from NGL and vice versa.

3. Investigating and monitoring emergent technologies and developments in the field of eLearning and anticipation for integration in the learning environment.

Answer: **Partially Adequate**

**Feedback:**

*Institutions should include a system of creating awareness of emerging technologies (intelligence gathering) Providing staff support for the use of emerging technologies  
Internal seminars or conferences on emerging technologies*

**Comments:**

The institution has for a long period invested in technical equipment and support for eLearning and it is integrated in the learning environment. We have modern technology that can serve to improve quality, the NGL Centre contributes with knowledge to assess and evaluate new available tools at the market. The NGL center also attending conferences both national and international where new methods for eLearning are discussed. In this way can the university be at the forefront of providing new technology to support efforts and investments in eLearning. Further, through close collaboration with teachers and students, it will integrate these to ensure that learning goals are met and that learning and teaching environments are further developed. Examples of such environments for which the NGL Centre is responsible are as follows:

- The learning platform Fronter – <http://fronter.du.se>
- E-Meetings program Adobe Connect – <http://meeting.du.se>
- Dalarna University's own Video Chat – <http://videochat.du.se>

NGL also provides staff support for the use of emerging technologies and they conduct internal seminars or conferences on emerging technologies on a regular basis. There are also a possibility to online support from the center and online courses to take part in as teacher in order to develop the skill in eLearning.

The challenges beyond technical implementations are to encompass the design and development of an educational system that is focused on learning rather than passively teaching students. The goal is to create an eLearning educational program that combines an electronic approach to delivering information with important principles, such as student activities, participation and personalised learning. In Nursing, we want to create a learning milieu that promotes independence, allows flexible work hours, enables students to create their “own university” and provides them with opportunities to practise their computer and digital skills.

There are some development needs regarding investigating and monitoring emergent technologies impact and integration in the learning environment. We need to more systematic follow the staffs knowledge and skills (accreditation) in eLearning and emergent technologies. There is not a systematic approach from the management demanding every teacher to take the online module courses that are offered, it is up to each one to reflect over the own competence needs and address it accordingly. The responsibility for the individual academic department such as Nursing is to establish their own strategies for monitoring and evaluating the technical equipment and tools and find new innovative solutions.

4. The resourcing of developments in eLearning activities should take into account special requirements over and above the normal requirements for curricula. These will include items such as equipment purchase, software implementation, recruitment of staff, training and research needs, and technology developments.

Answer: **Partially Adequate**

**Feedback:**

*Your strategic plan should address the provision of the human, technical and financial resources necessary for implementation. There has to be an effective infrastructure for delivery of teaching materials and student support services.*

*The policies should address issues of :*

*Financial, physical and technical resources*

*Staffing and staff development*

*Management, responsibility and accountability.*

*It is possible that your institution has to review and revise the policies on the deployment of resources to ensure that it has in place an adequate technical and physical infrastructure.*

**Comments:**

The institution has some overall eLearning activities for the departments curricula foremost concerning equipment purchase and software implementation. However, the individual departments have no clear strategies according to recruit staff, training and research needs for developing eLearning. There are some important development areas mention above such as we need to get better at identifying employees' technology skills and knowledge and how they use technology in education. This is necessary in order to support individual teachers to develop their eLearning in accordance with the operational plan.

As mention above, future development efforts will be to more clearly state the management, responsibility and accountability for eLearning. There are visions at institutional level but it is not fully expressed in the operational plan for Nursing.

5. The institution should have an eLearning system integrated with the management information system (registration, administrative system and VLE) which is reliable, secure and effective for the operation of the eLearning systems adopted.

Answer: **Partially Adequate**

**Feedback:**

*The administrative aspects of eLearning programs may require significant changes in administrative systems to enable students to access information regarding their status, progress, etc on-line. Equally the "system" must have the capability to distribute appropriate materials to students. To meet these needs the institution must ensure that its management information system is capable of operation to appropriate standards of reliability, security and effectiveness. Low performance against this benchmark requires a review of systems from the perspective of institutional and student users to ensure future development fully addresses the needs of eLearning delivery.*

**Comments:**

Even beforehand the start of the program the students are addressed with material concerning their application-form (15 april/15 okt). They will throughout the whole application process be addressed continuously from Dalarna university. They are informed about special routines like "How to enter the welcome student Fronter room" which is filled with informative links and material of interest. The program room contains material addressing the program and the first course room is filled with schedules, lists of literature, information about the first week etc. The schedule is supposed to be presented as early as possible – mostly before teachers leave for summer vacation (end of June). Minimum two weeks before start according to the actual administrative regulations.

There is a centralized administration at national level for application to all higher education [www.studera.nu](http://www.studera.nu) where the students apply to courses or educational programs. In addition, there is a website for comprehensive information about higher education in Sweden at <http://www.studyinsweden.se/>

The central (and national) system for study results – Ladok – is updated from the day of registration. Once a student is registered at Dalarna University he/she will be signed into all actual systems by being given a username/login, entrance/security-card, Fronter access, access to computer rooms, library etc.

*Study administration department* are responsible for updating regulations, setting up routines and communicating those to the staff. They work together with NGL-centrum as well as PR/Info in order to reach both students and staff.

A new group of students in the nursing program (75-87 students jan/aug) needs to be addressed by all these preparation, registration and introductory routines in order to be able to concentrate on the studying as fast as possible. As soon as the student is registered at the University they have access to a personal tailored webpage called "[My pages](#)". There the student can look up examination schedules and register for them, see their own study results for previous courses. Further, see a list of courses where they are currently registered and also see course participant. Furthermore, choose to drop a course or turn down admission to courses.

There is an improvement process concerning the welcome information to all students and how the various departments involved in the process can collaborate in an advanced way "*How do we reach the right student with the right information in the right time*" is the main question. NGL-centrum is playing a central role and it is getting more and more centralized and conformed from time to time



<http://www.du.se/en/Student1/Welcome1/>

The University has a well developed technical backup system for all eLearning systems such as Ladok, Fronter and Connect. Several departments are established to ensure safety. For example, we have a Helpdesk with people serving staff and students with technical support for software related issues with computers, cell phones and e-readers. NGL center support digital learning environments for example by using various tools for creating the best conditions for interaction between students and teachers. The ICT department supports the staff for soft- and hardware related issues related to computers. The University has a well established centralized routine for support. The staff register their support needs to [support@du.se](mailto:support@du.se)

Another development area is to improve the security when using technology for assessing the learning outcomes. We need to assess the methods we use for developing new approaches.

6. When eLearning involves collaborative provision, the roles and responsibilities of each partner (internal and external) should be clearly defined through operational agreements and these responsibilities should be communicated to all participants.

Answer: **Not Adequate**

**Feedback:**

*The infrastructure and developmental costs of eLearning may create circumstances in which collaboration with other institutions provides an attractive route for the development and delivery of e-learning.*

*The development of collaborative ventures, whether initiated through top-down or bottom-up processes should be formally agreed and ratified prior to the course design stage.*

*Contractual arrangements between the collaborating partners should define the scope of the collaboration, the responsibilities of partners, financial arrangements and the relationships with third parties particularly students and teachers.*

*All collaborative ventures should be subject to stringent risk analysis and appropriate contingency planning should be in place in the event of the collaboration breaking down.*

*Low performance against this benchmark may indicate that collaborative projects have been pursued outside a clear institutional framework. Institutional action may be required to strengthen existing collaborative arrangements and provide a policy framework for future development.*

**Comments:**

The trend in higher education is towards greater cooperation both national and international and we need to develop this. Collaboration is needed both in terms of overall education issues but also to co-produce more education between institutions and the business sector. Cooperation is also needed when it comes to quality improvements and research about eLearning. The institution has a close collaboration with Örebro University in the research program based at the NGL center.



The nursing department needs to enhance collaboration with departments, research groups and institutions both national and international both when it comes to collaborate in programs and courses but also to scrutinize the special challenge that is connected to eLearning in an education with much of clinical training. We need to develop a clear action plan for future development in collaboration in eLearning.

## CURRICULUM DESIGN

7. ELearning components should conform to qualification frameworks, codes of practice, subject benchmarks and other institutional or national quality requirements

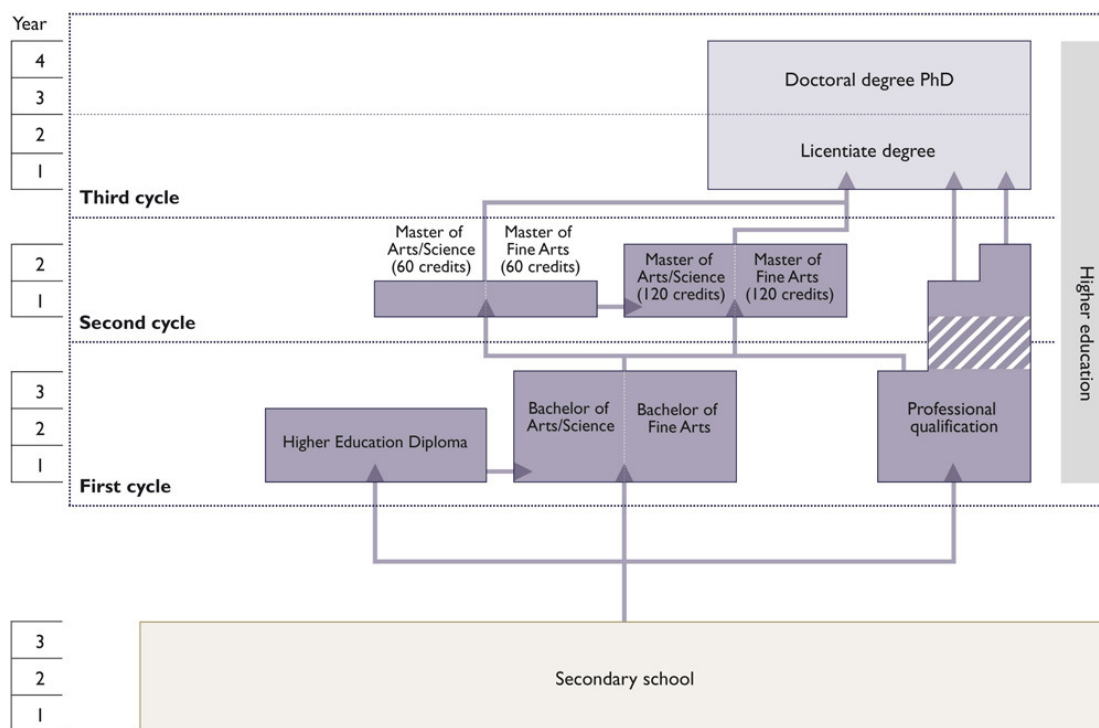
Answer: **Partially Adequate**

### Feedback:

*A low score against this benchmark may indicate that the institution's eLearning program has been developed on an ad hoc basis and not as part of its mainstream curriculum. If it does not conform to accepted academic frameworks then it will not secure recognition by regulatory bodies or peer review processes.*

### Comments:

The nursing program at Dalarna University conforms fully with the national regulations for basic education of registered nurses in Sweden. The nursing program is part of the first cycle of higher education comprising a 3-year education.



Högskoleverket, 2011-01-28

There are several regulations, both national and international, that need to be considered regarding the design of the curriculum, but a certain freedom exists in designing the curriculum. The quality of higher education is evaluated by the Swedish National Agency for Higher Education using a 6-year quality evaluation cycle. The next evaluation of nursing education for bachelor's degree in nursing will take place in 2013. The following regulations are considered in the design of the curricula at Dalarna University.

- The learning outcomes described by the Ministry of education in the Higher education act ([1992: 1434; 1<sup>st</sup> chapter, § 9](#)) along with the more elaborated Education Ordinance ([1993:100](#)) describing the requirements of generic competences as a result of higher education as well as more specific competence requirements for the program in question. Different types of knowledge is required: knowledge and understanding, skills and abilities, and judgments and approach
- Competence requirements for registered nurses described by the National Board of health and Welfare (2005).

Further, the educational curricula is in line with European agreements regarding the education of nurses and mutual recognition of educational qualifications between member states; EES-regulations (89/595; 90/658) and DS 1992:34.

The educational program leads to two exams: Bachelor of Science in Nursing & Degree of Bachelor with a Major in Nursing, 180 ECTS.

The program conform fully to accepted academic frameworks and received recognition in 2007 from the Swedish National Agency for Higher Education after revisions of some aspects regarding structure and process that had been criticized in the quality review in 2006. A new national qualitative review process will take place in 2013.

Investigations regarding alumni's perspective on the education they received showed that they felt quite well prepared to work as registered nurses. They rated their own overall competence as 6,1 on a 10-point analogue scale. The employability of the students seems to be very good, and any potential problems with finding work has more to do with the economy in society as such.

**New evaluative answer: Fully adequate**

8. Curricula should be designed in such a way as to allow personalisation and a flexible path for the learner consistent with the satisfactory achievement of learning outcomes and integration with other (non-e) learning activities. Use of formative and summative assessment needs to be appropriate to the curriculum design.

Answer: **Partially Adequate**

**Feedback:**

*Good performance against this benchmark will indicate that the institution prioritizes the flexibility that eLearning offers to students.*

*It is recommended that attention is paid to design of curricula that offer the flexibility for students to start and complete courses and programs to schedules of their own choosing.*

*eLearning must offer for students the possibility to work to flexible timetables of their own choosing within a cohort of students progressing through the course or program to overall schedules established by the institution.*

*In curriculum design it is best to focus on the macro level with the presumption that the detail relating to course materials design and delivery system availability will be implemented by course developers to maximize micro level flexibility.*

*For formative assessment we recommend that the opportunities offered by eLearning platforms are exploited to provide feedback to students and to allow assessment of progress at regular intervals.*

*For summative assessment it is important that the procedures are explicit, fair, valid, reliable, plural.*

## **Comments;**

The students attending the nursing program have typically been women in their early thirties, often with children, with both a developed social and working life before entering the education. Times have now changed and the students are generally slightly younger and a larger group of people come directly from senior high school. However, the university has had a strive since 13 years towards distant learning education as we called it back then. The basic idea was to facilitate for students to attend to higher education in nursing by increasing the flexibility and possibilities to integrate studies with other aspects of life. The distance to the university in Dalarna from the northern part of the county is more than 200 kilometers. Further, there have been pedagogical aspects underpinning the change as well considering current knowledge of learning and learning processes, emphasize on collaborative learning and the individuals own responsibility, and the constructivist aspects of learning. We have since 2000 developed our curricula with increasing more flexibility and student centeredness with a high degree of own responsibility, with the anticipation of students as active learners. Students are now scheduled approximately 10-15 hours/week in a course with a combination of lecturers, seminars, skills training and other learning activities. Scheduled learning activities are regarded as learning opportunities which are not mandatory. However, examinations in the course are mandatory, and they can have different format. Sometimes participation in the seminars in the course is a part of the examination, and then the seminar of course is mandatory. The students decides themselves if they attend the scheduled learning activities or not, the teachers stress however their experience which often is that the student perform better when participating in the scheduled learning activities.

The rest of the available time up to full time studies is totally under the control of the student where we encourage them to work together and collaborate in various ways. However, the student is scheduled almost fulltime during courses comprising clinical education (40 weeks during the whole program) which demands their presence in the clinical placement. Emphasis is placed on clinical education where different learning activities take place in the clinical setting, among others regular seminars are held, and the student can allocate time to deepen the knowledge regarding some specific knowledge areas, e.g. treatment of specific diseases, guidelines for clinical practice.

The curricula is designed for full time studies with fixed starting dates and finishing dates for both entering the program and attending specific courses within the program. Currently, we do not have the opportunity to design curricula that offers the flexibility for students to start and complete

courses and programs to schedules of their own choosing. We do though plan for a course for registered nurses regarding tutorship of nursing students which is developed using the concept of “free start – free speed” – that means great opportunities for the students to decide on starting time and preferred progress in the course, by using pre-established learning modules to a high extent.

However, if the students do not qualify and receive credits for a course within the present program, there are possibilities to conduct the studies in accordance with an individual study plan which is decided on in collaboration with the program director. Further, there are possibilities to take study breaks for a term or up to 3 terms, while keeping the study position in the program. These solutions are becoming more and more frequent, and in a way it means that there is a possibility in practice to have a flexibility in time regarding pace of the study.

The University regards learning activities within a course as optional for the student. They are planned and conducted as a support for the student’s learning but it is up to the student to decide to participate. The teaching staff states to the students that their experience is that participation in the scheduled activities is often associated with successful completion of the course, but it is up to the student. The only activities within a course that are mandatory is registration to the course and examination of the course. However, there are courses using summative evaluation of the student’s performances and in those cases the seminars might have the function of examination, and thus also are mandatory. The students are often offered some flexibility regarding the scheduled learning activities. A lecture can be attended in different ways. Often, the student has the three different ways of attending a lecture. (1) show up at campus in the class-room and interact with the teacher; (2) Using video chat to connect in real-time to the classroom for synchronous communication. To attend the lecture and to communicate via chat with the teacher. The students can also have a separate student-chat going in the whole group or between specific individuals during the lecture as well; (3) Use the opportunity to take part of the lecture afterwards via a link posted at the course web on the Learning Management System (Fronter). The link to the streamed lecture is available during the course period, but the student cannot interact via chat with fellow students or with the teacher. The asynchronous communication is only one-sided where the student can take part of what was happening at the lecture without being able to interact.

The studies have a student-focused approach anticipating the student to take responsibility for the learning, while the teachers can provide good learning opportunities and support the students motivation and reflection about learning content as well as learning in itself. Each course has a study guide displaying the activities and examinations in the course and in some courses the examination task is provided at the beginning of the course so that the students can work with the task in their own pace.

In some courses using formative examination on-line study material with feedback provided on separate items is used, e.g. anatomy and physiology. Then the students can see their own progress during the course. A student’s log is used in some courses to make the students reflect over their own process and learning, e.g. in clinical practice in psychiatric care and when writing their bachelor thesis. Further, we have plans to implement a student portfolio in the basic nursing program which accompanies the student along the trajectory of the program. A discussion have been held for a couple of years without reaching the implementation stage, partly because of lack of technical solution. The students own activity is thought to increase by the use of a portfolio and also to have pedagogical advantages that we want to draw upon. Furthermore, there are plans to implement a mentorship throughout the program where a stabile group of students and a teacher meet and have

a seminar once in each course. The seminars should have an predetermined ethical theme and also address a more personal dimension regarding development of professional role and personal growth. A basic assumption we have is that the seminars also contributes with a sense of belonging and stability for the students, which is regarded as an important aspect considering the potential feelings of loneliness and lack of context that might be seen related to eLearning. We are not so worried that this is huge problem for our students since we have so much synchronous real-time meetings with the students.

9. Curriculum design should ensure that appropriate provision is made for the acquisition of general educational objectives and the integration of knowledge and skills specifically related to e-working across the program of study. The contribution of eLearning components to the development of educational objectives needs to be made clear.

Answer: **Partially Adequate**

#### **Feedback:**

*Achievement of good performance against this benchmark requires institutions to implement an institutional policy on generic skills development and to have identified appropriate mechanisms for their development and assessment using eLearning. Skills prerequisites may be as important as knowledge prerequisites in determining progression between courses in a program.*

*A poor performance may indicate that the institution should address: the development of a suite of core transferable skills that relate to literacy, numeracy, critical analysis, presentation and communication together provide an essential aspect of higher education programs. the clear definition of learning outcomes and skills to be acquired at various stages. identification by Curriculum designers of a logical progression of skills development and allocation of responsibility for delivery and assessment of skills to courses in a program.*

#### **Comments;**

Students attending the nursing program will at the completion of the program have basic knowledge and skills to use a variety of information and communication technology (ICT) which we see as essential for their future clinical practice as registered nurses. They have been trained, mostly perhaps through “learning by doing”, to use different applications for both synchronous and asynchronous communication which will be helpful as health care more and more use ICT and can be labeled e-Health. They know how to meet in virtual seminars, and have done so rather extensively. Currently this has mostly taken place in the campus-based parts of the education, but occasionally also during clinical studies in the municipalities – the IT-department in the County Council do not allow that kind of traffic at this point in time. The students have been trained to document in electronic health records, at least two or three different information systems depending on where their clinical training took place. The individual experience of using ICT also means a better position when evaluating other systems or just to be using other systems. Hopefully students develop a critical perspective on the use of ICT in health care drawn upon their own experience from using ICT

during their education. This makes them also more capable to come up with specifications regarding ICT for use in clinical practice

An overarching goal of higher education is to foster critical thinking and to develop the competence to communicate both in text and verbally. The learning activities and the format of the examinations means that the students have used different ways of communicating their knowledge, skills and judgment and evaluative capability. There are, as mentioned before, learning outcomes described in the educational plan which are derived from the Higher education act ([1992: 1434; 1<sup>st</sup> chapter, § 9](#)) along with the more elaborated Education Ordinance ([1993:100](#)). Further, each course constitute a bit of the puzzle towards that complex competence that the student need to acquire in various areas. There are specific learning outcomes stated in each course syllabus, and descriptions of learning prerequisites to attend each course. The progression in the program goes along different lines. Learning outcomes go from more simple to more complex competences, from caring for individuals to caring for groups, from healthy to more problematic health status and also how the student masters different skills with an increasing depth and quality, and more independent. Further, the students need to demonstrate more complex communication skills, both verbally and in writing, using references and also to be more analytical and critical thinking.

Registered nurses in Sweden need to have acquired a competence to work with eHealth, the use of digital techniques to support health care and health. In Sweden, Electronic Patient Records (EPR) are used for documentation in all types of health care. All students get in touch with EPRs and other electronic information systems , e.g. for administration and laboratory, during their clinical education. Further, the extensive use of ICT during their studies to promote learning makes them better prepared on a general level to use ICT in health care. However, we need to address the issue of eHealth in a more systematical way in the program.

10 Curricula should be designed in such as way as to require broad participation in an academic community. As well as student-student and student-tutor interactions this should include, where appropriate, interaction with external professionals and/or involvement in research and professional activities.

Answer: **Partially Adequate**

**Feedback:**

*A good performance against this benchmark indicates that the institution has developed policies and practices that create effective on-line learning communities.*

*An institution that does not perform well against this benchmark should address the issue of formal and informal community building across its academic community specifically.*

*The design of their curricula to foster broad participation in an on-line academic community through explicit student (and staff) contributions to group activities designed as components of the curriculum.*

*In other instances it is implicit through scholarly social interaction in a campus based environment.*

*Policies for curriculum design addressing the knowledge and skills acquisition required by national and European award structures, identifying those elements in which collaborative activity is required and provide broad direction as to how students following eLearning programs should participate in the broader academic community.*

*Four aspects of community development may be identified to which curriculum design needs to be sensitive.*

*Firstly, a general academic community is required by all departments and divisions of the institution to provide a framework for student-teacher and student-student interactions.*

*Secondly, communities may need to be established to fulfill a specific academic objective, such as participation in research activity.*

*Thirdly, communities may need to be established to link students in with broader professional communities.*

*Fourthly the provision of opportunities to engage in the non subject specific discussion and interchange that adds richness to the student experience to replicate the interchanges enabled by physical presence at a campus based institution.*

## **Comments;**

### *Part of several groups*

The curricula, and how it is taught, draws on the knowledge regarding collaborative learning. We had previously more distinct features of problem-based learning even if it was moderated to our needs and prerequisites in the organization. Still, we have some core features in place. The students are in most courses in the program part of a group of approximately 8 students attending the course with the support of a teacher. The students are forced by the university to change groups and become part of new student groups as the educational program progresses. The curricula stipulates as well that you can be part of different groups within a course, e.g. first have initial discussions in your primary student group and then take that discussion with you into a secondary group for further discussions. The reason for that is the need to connect with new people and learn from their way of thinking – in order to broaden the learning experience. The exchange of knowledge and ideas will then be more fruitful. If they were to remain in the exact same group all the time, the learning experience will be reduced when you get to “know” the others way of thinking. The university also stress the importance for the students to be part of other groups as well, and want the students to use their respective networks, or to create the networks that they need. If several students are from the same geographical area they could use that to support one another apart from their participation in virtual student groups. It is part of the learning progress to be able to establish the contacts they need themselves. All student groups usually establish groups in different social media like Facebook which they utilize during the education. Members of staff gives support to that kind of actions but does not initiate them, apart from making remarks of the possible benefits with using that kind of communities.

### *Synchronous communication*

Our curricula for eLearning differ possibly slightly from the general picture of eLearning and distance learning. It is stated in the manual for *Quality Assurance for eLearning in Higher education* (section 3.2.1) that there is no direct contact in the delivery of learning content. This is not entirely true for the nursing program at Dalarna University. We utilize the possibilities to a high extent to have synchronous communication in the courses despite geographical distances by using information and communication technologies. As described earlier, attending a lecture means in most cases also an opportunity to have synchronous communication, comprising direct contact with the lecturer and fellow students by a chat-function – to be able to interact. Further, the extensive use of net based seminars using Adobe Connect means the students interact with their teachers and fellow students to a high extent. In these cases the students can interact both visually and vocally. They see each



other using the web camera and share the same whiteboard and can thus collaborate in learning activities. All participants have the same opportunity to address the group by posting documents or show pictures or films on the whiteboard. They talk to each other using a microphone. The potential for interaction is high but the participants need to be prepared in advance in order to be able to utilize the potential. To have documents they want to use in the seminar available etc. It also raises a need for the leader of the seminar (most often a teacher) to have a clear idea of how their interaction should take place – to have a pedagogical idea of the seminar.

### *Asynchronous communication*

A lot of asynchronous communication is also part of the curricula. A discussion forum is established in each course, and often there are several threads in the forum. One thread in the forum is always for raising a discussion with the teachers and those responsible for the course. However we also try to use a discussion forum where the students address themselves with various topics – to use the competence of the group. Sometimes a discussion forum is used as a support for various purposes, but occasionally the examination of the course is connected with the activity in the forum, the students are evaluated from the activities in the forum. Further, email contact is a useful way for communication in the course but we try to address questions that are relevant for many of the students in the discussion forum, so that many people can read the answer. Further, the Learning management platform [Fronter](#) is used extensively for communication regarding the course, the curricula, learning material and learning activities, examination and time schedule for the course.

One learning activity that have been used in some courses in the program is to let the students develop a Wikipedia regarding a specific topic. All students are invited to participate in a joint effort of building up a knowledge depository regarding a specific topic of relevance for the course.

### *Academic community*

As a student at the university you are part of a broader academic community, even if that is not so obvious for the undergraduate students at all times. Post graduate students have more easy access to e.g. research seminars and such at the university, where the undergraduate student presumably do not feel that they are invited. However, all the contacts the undergraduate students have with teachers and researchers contribute to a sense of belonging to a group, as first steps of developing a professional identity. At least that is valid for the students contacts with staff that are registered nurses themselves, and possibly also in relation to researchers.

Further, we do have a policy that undergraduate students should write a literature review as their bachelors thesis. This is valid for almost all students, but some students might be involved in parts of ongoing research projects conducted by some of the researchers in the staff. This is more prominent in the postgraduate students project, but it sometimes happens. We have to a high extent an extensive collaboration with representatives for the County Council in the region as well as with all of our 15 Municipalities (or county, commune) in order to develop or extract topics of interest for the clinicians. What questions do they want to be answered? What kind of information do they need in their ongoing quality work to enhance practice? We have developed a list with a collection of ideas and requests from the clinicians that the students can access and perhaps choose topics from. By doing that the students become in a way part of a professional community, be it a small network of people with interest in their work. Communication of the findings of the reviews is also a part of the process. The students report back to the people behind the origin of the idea, or those who have the need for structured information on the topic. Further, all students participate with a short oral presentation on a Research and Development Conference held at the University. All students present

their own thesis, both from bachelor and master level, alongside with presentations of research or quality work conducted in health care, be it from county council, municipalities or by researchers from the university. Furthermore, starting this January 2013, the concept is broadened to cover the knowledge area of Social workers as well. The day is framed by a marketplace where students can meet future employers and professionals can meet other professionals. In this way, our students becomes part of a large nursing community and also contributes to the knowledge and competence development in that community on a local and regional level.

### *Professional community*

The students have a great portion of clinical education throughout the program, approximately 40 weeks in total and also skills training in simulation center as well. These parts of the program is of necessity highly based on physical appearance and collaboration in the clinical arena. The students are part of a professional nursing community in all clinical placements regardless where the education takes place. Our students have at least seven different clinical placement covering health care provided in hospital, primary care, community care and home based care.

### *Support for teaching staff and students*

Teaching staff do receive support from centrally placed resources at the [NGL-centre](#) that support eLearning. A number of short courses and online learning modules are provided but it is up to the individual teacher to take them. There is not a systematic approach from the management demanding every teacher to take the online modules, it is up to each one to reflect over the own competence needs and address it accordingly. The content have shifted over the years, depending on the specific needs. Currently there are modules for learning about the learning management system Fronter, software Adobe Connect, Adobe Presenter, tools for check of plagiarism and how to use a smart board. The demonstrations do not only cover technical handling but also pedagogical issues. Steps have been taken so that the individual competence is discussed during annual meetings between manager and employee.

Students can access support on how to use all the techniques present in their education from the [NGL-centre](#) website. There is e.g. a specific room for support in [Adobe Connect](#) where all the virtual seminars are held, a café. Here both students and teachers can test their own equipment trying out the sound and image. There is also trained staff present in the room to assist anyone who needs it, at least between 08:00 p.m. until 10:00 p.m Swedish time. since the university has many students abroad with different time zones.

Documents; Program Curricula will be attached as a separate file

## COURSE DESIGN

11 Each course should include a clear statement of learning outcomes in respect of both knowledge and skills. In a blended-learning context there should be an explicit rationale for the use of each component in the blend.

Answer: **Partially Adequate**

**Feedback:**

*Performance against this benchmark for eLearning programs should be consistent with that for other modes of delivery for the institution. Each course should include a clear statement of the learning outcomes to be achieved on successful completion.*

*These outcomes will be specified in terms of knowledge, skills, vocational/professional competencies, personal development, etc. and will usually be a combination of these.*

*The development of each course should provide a clear documented course specification which sets out the relationship between learning outcomes and their assessment.*

**Comments:**

Each course includes a clear statement of the learning outcomes to be achieved on successful completion. These outcomes are specified in terms of knowledge, skills, vocational/professional competencies, personal development. The learning outcomes follow the expressed general outcomes for higher education at national level.

Each course has its own platform and includes a course guide with clear specification of learning outcomes, assessments, learning activities and learning tools.

Course design is a continuous quality improvement cycle. For the moment, the nursing program developing the nursing program in order to fulfill the aim of have a clear constructive alignment between outcomes, assessments and learning activities in all courses. We will also express more clearly that each presented learning activities should precede a careful analysis of which technology method is needed to support the activity. This will be expressed in the education strategy for the Nursing department.

- 12 Learning outcomes, not the availability of technology, should determine the means used to deliver course content and there needs to be reasoned coherence between learning outcomes, the strategy for use of eLearning, the scope of the learning materials and the assessment methods used.

Answer: **Partially Adequate**

**Feedback:**

*Good performance against this benchmark requires course designers adopt a logical approach to their use of eLearning. Fitness for purpose should drive decisions on the selection of pedagogic components. The blending should be such that different methods and media are well chosen.*

*Pedagogic designers must resolve the tension between the ease of access offered by the anywhere, anytime availability of on-line eLearning delivery and the flexibility of pedagogic interaction offered by direct face-to-face contact with teachers inherent in the best of classroom based teaching.*

*If it is not possible to deliver learning outcomes solely through eLearning then face to face techniques may be adopted.*

*Design of assessment is an integral component of the pedagogic design hence the design team should ensure that wherever possible the assessment strategy reinforces its teaching strategy. The*

*interactivity inherent in electronic materials and delivery methods provides scope for embedding formative assessment components within course materials.*

**Comments:**

We are offering learning activities in a wide range where students can follow the course from anywhere, at anytime with various on-line tools and with a flexibility of pedagogic interaction. Teachers offer direct face-to-face contact as well as meeting on-line throughout the course. A majority of the lectures are held in real time (which make it possible to chat with the teacher) and every lectures are recorded and involved in the course room reached by the platform/webreader [www.du.se/Fronter](http://www.du.se/Fronter) room; sjuksköterskeprogrammet (nursing program).

Design of assessment is not fully determined in the pedagogic design. We need to focus more on developing strategies in order to ensure that the pedagogical issues address the type of assessment and eLearning tools in each situation.

We have some interactivity formative and summative assessments both in seminars (on-line and face-to face) and diagnostic tests.

The major challenge is to assure quality and improve the efficiency and effectiveness of eLearning in our nursing curriculum. We must develop and learn how to use new pedagogical methods and ideas to support the students in practising their clinical skills. In addition, we must incorporate the eLearning approach into the entire nursing program and allow the learning goals to guide the pedagogical methods and technical support. The university's eLearning goals (i.e., improved interaction between teachers and students, a superior and user-friendly technical environment in which pedagogical ideas are in focus and the stimulation of students to become more focused and responsible for their learning activities and outcomes) must be fully integrated into the nursing program.

Areas that we want to develop further include the integration of eLearning into our courses to permit dialogue among students and teachers, the provision of personalised education and the encouragement of responsibility and participation among students and staff in e-learning education.

To achieve our goals of providing high-quality e-learning education, we must articulate and develop the following:

- the vision of the institution in relation to e-learning
- the quality improvement cycle (e.g., by benchmarking)
- the rights of students to design their own university
- assessment methods that enable students to design their own education using, for example, eLearning portfolios
- innovative methods of using eLearning in clinical practice

13. Course design, development and evaluation should involve individuals or teams with expertise in both academic and technical aspects.

Answer: **Not Adequate**

**Feedback:**

*This benchmark is designed to test whether the course design process is undertaken by staff who are equipped to address both academic and technical aspects of eLearning. A good performance in this category will indicate that the professionals concerned are operating an effective design and development process.*

*Those involved in the course design process require experience of eLearning and its capabilities. In a rapidly evolving field much of this experience is gained through project participation rather than formal qualification.*

*The development of high quality eLearning content is dependent on close collaboration and good communication between academic course designers and those responsible for its realisation as teaching media.*

*Engagement between academics and media professionals in the technical design contributes significantly to the effectiveness of course materials. One key issue that impinges on working relationships is whether technical design inputs should be integrated with the academic and pedagogic design process or whether they should be applied to the outputs from this process. Course materials and delivery technologies should be evaluated under realistic conditions of anticipated use that replicate both the equipment and connectivity used by students and the traffic volumes anticipated at central portals and course servers.*

**Comments:**

Course design, development and evaluation is conducted by teams foremost of academic experts. However, the teachers in the program are familiar with on-line tools and should implement those in the course depending on learning goals and activities. We need to develop a strategy to also include expertise from our ICT department and NGL center. At the moment we ask them by “ad hoc” more than routinely involve them in course design. We need to develop eLearning content in close collaboration and good communication between academic course designers and those responsible for its realization as teaching media.

14. Within eLearning components, learning materials should be designed with an adequate level of interactivity to enable active student engagement and to enable them to test their knowledge, understanding and skills at regular intervals. Where self-study materials are meant to be free-standing, they should be designed in such a way as to allow learners on-going feedback on their progress through self-assessment tests.

Answer: **Partially Adequate**

**Feedback:**

*This benchmark tests whether course designers have directed their attention to a range of detail design issues. Scoring on a single course may not provide a full perspective on all factors indicated here. The use of communications and collaborative working tools have enormous impact in providing*

*support and academic community building for distributed student populations. Their effective use can be a make or break factor in the success of individual students hence course designers should devote considerable attention to their design and use.*

*The course design team should review course specific learning objectives and their role in achieving wider program objectives that relate to collaborative working, project based activity and interpersonal skills in order to establish their use of collaborative tools.  
Student assessment is an integral component of course design providing both formative and summative elements.*

**Comments:**

In all our courses there are both interactive web-seminars as well as face-to face-activities on campus. During real-time lectures the student can use the chat-function either for to reach the teacher with questions or other students only.

In many seminars during clinical studying there are compulsory seminars in order to discuss questions as well as students own development throughout the clinical education.

There are methods for interactive and collaborative information and knowledge generation such as wiki's etc. Example; A wiki written by students concerning e.g. nursing middle-range theories. Each student contributes to create collaborative texts which assembles to a whole. [www.du.se](http://www.du.se) Fronter

A discussion forum is established in each course in order to create and maximize collaboration and interaction between both teachers and students.

Further, email contact is a useful way for communication regarding the studies.

Documents; Coursematerial/Fronterroom - VÅ 1024; There you can find a WIKI, Article Forum (Nursing articles)

15 Course materials should conform to explicit guidelines concerning layout and presentation and be a consistent as possible across a program.

Answer: **Not Adequate**

**Feedback:**

*This benchmark tests aspects of good practice in materials design. A poor score in this area may indicate that the organisation should make a greater investment in the contribution of media professionals to course design teams.*

*It is recommended that institutions implement a framework of technical, accessibility and presentational standards that apply to eLearning materials and systems embracing the following factors:*

**ergonomics:** interfaces used in the technical design of courses should conform with up to date standards of ergonomic design and navigation through e-material

**attractiveness:** interfaces and design of material, including e-material, should conform to broadly acceptable standards and be neutral as to sex, ethnicity, age and related issues.

**modernity:** software used in the courses should conform to recent standards of version and use, and be platform neutral or offer a choice in use

**downloads:** material to be downloaded should take into account reasonable standards of time to download, pace of download, and platforms of compression (if used).

**updating:** software used should be such that updates are easily implemented and readily accessible to users.

**consistency:** consistent style sheets and schemas should provide consistency of use for learners. Authors should be provided with consistent authoring tools and a supportive environment to enable them to make effective use of tools.

### Comments:

A basic idea of the institution is to produce learning material which hold adequate quality, and not necessary the highest professional quality. It is important that the teachers themselves have control over the production. E.g. lectures broadcasted via streaming is communicated exactly as it was, with the flaws and benefits that took place. The recording is slightly edited by a technician, mostly to provide a good start and finish and to remove coffee breaks in the lecture which is unnecessary to hold on to. No content is manipulated or edited. However, some lectures are prerecorded, often using Microsoft Producer, and that gives an opportunity to edit. Further, there are resources at the University to produce presentations with support from media professionals, but we have not used it extensively in the basic nursing education. Further, some collaboration is on its way using e.g. media students for creating learning material regarding clinical training.

The university has explicit guidelines for layout and presentation of learning material, e.g. for power point presentations, as well as for communication in general. A number of templates are available from different purposes. Course materials within the program are relatively conformed to the standards, e.g. for course syllabus and student reports, essays or thesis . We have had discussions regarding the use of a common design on e.g. a course interface in the LMS and study guides , and have also implemented solutions to reach that. The experiences are that the format is not that important, to the extent that it has to be total obedience. The most important thing is that the students can find a certain kind of information, but the package it comes with can vary within some limits.

Some occasional feedback is provided from media professionals on a general level on how a web page ought to look like, and such comments. We have much to learn to use research based knowledge on displaying information on the web and need to develop clearer support structures to teachers when developing course material.

16. Courses, including their intended learning outcomes, should be regularly reviewed, updated and improved using feedback from stakeholders as appropriate.

Answer: Fully adequate



### Comments (Fully Adequate);

Each program-course ends with an assessment from the students concerning their learning outcomes as well as their view on the organization and contents. Students feedback is a very important part of a teachers planning for the next class. It has to be said that students opinions and point of view are taken under serious consideration as we have a very close communication with all our students.

Unfortunately, we have a low response rate of the online evaluations, which makes the answers less representative and therefore the reliability could be questioned. However, each teacher is responsible for a summative evaluation of the course as a complement to the students' evaluation. Evaluations are also performed in various ways such on the web, by email and face-to-face forums, which all to all gives us a rather good picture of the students opinion of the courses.

All programs and courses in Nursing are right now undergoing a quality assessment according to a national qualification framework from The Swedish national agency for higher education (HSV) <http://www.hsv.se/highereducationinsweden/nationalqualificationsframework>. The qualification will be based on how well programs at undergraduate level can reach the overall learning outcomes for higher education.

17 Courses should provide both formative and summative assessment components. Summative assessment needs to be explicit, fair, valid and reliable (see section 2.5.2). Appropriate measures need to be in place to prevent impersonation and/or plagiarism, especially where assessments are conducted on-line.

Answer: **Partially Adequate**

### Feedback:

*This benchmark tests the effectiveness of assessment design processes. Good performance in this area will be achieved by institutions that encourage effective use of both formative and summative assessment. Poor performance may indicate that the institution has not fully addressed the transition from face to face to on-line eLearning delivery with the potential offered for embedded formative assessment.*

*Course design should provide opportunities for formative and summative assessment. Institutions operating distance learning systems have well established processes for combining continuous assessment and end of course assessment to establish measures of overall student performance. Continuous assessment may fulfill both formative and summative functions. Feedback from tutors/mentors on assessment tasks provides the learner with reinforcement or direction for remedial learning. Within a continuous assessment suite the relative importance of formative and summative functions may be adjusted to achieve specific pedagogic results.*

*The development team should endeavour to exploit the interactivity inherent in ICT systems, particularly through formative assessment activity, to confirm and reinforce student learning. Formative assessment may be built into the design of structured teaching materials. It is possible to allow students to progress only when they have achieved acceptable levels of mastery of a topic. Such an approach might be regarded as inappropriate in the HE environment, nevertheless development*

*teams should determine how they will make use of the interactive mechanisms available to provide students with feedback or remedial teaching.*

*As verification of student identity is an ongoing concern for eLearning administrators, there should be evidence that design teams have addressed the issue thoroughly by identifying the opportunities and methods to establish and cross check identity. Course tutors and mentors may have a role in this.*

#### **Comments:**

Student assessment is an integral component of course design and providing both formative and summative assessments. However, we focus more on summative elements of the assessments. We could develop more self assessments during the process of the course and develop portfolios in which the students could analyze their own learning process. We need to develop explicit assessments criteria and assessments that are valid and reliable in order to prevent impersonation and plagiarism. The nursing program uses an antiplagiarism software program. The library also presents information how the students can prevent to plagiarize texts.

We control student identity in every online examination taking place face-to face, e.g. Adobe connect seminars. Other webbased examinations are conducted after the use of a personal login – but there is a always a risk that somebody cheats. In that case it is in the students own interest to spread the personal login to the person helping them. A way of dealing with the potential risk of plagiarism and cheating is to combine written examinations with oral presentations and discussions. The student need to show their knowledge level in different ways as part of the examination. The extensive use of synchronous meetings on line is also a way to confront this problem. We have had some bad experiences with online examinations , three mishaps, where the systems have failed, or the users handling of the system has imposed a risk of failing. We need to develop forms for online examinations, and there is currently some projects looking into that at the university as part of the Next Generation Learning – research and development project.

## **COURSE DELIVERY**

18 The technical infrastructure maintaining the eLearning system should be fit for purpose and support both academic and administrative functions. Its technical specification should be based on a survey of stakeholder requirements and involve realistic estimates of system usage and development.

Answer: **Partially Adequate**

#### **Feedback:**

*This benchmark is used to assess the provision of technical infrastructure. Evidence of an effectively designed and implemented strategy is essential to secure a good performance against this indicator. It is recommended that there is evidence of a structured survey and analysis of stakeholder expectations of the performance of the eLearning system. Major stakeholder groups are academics,*

*administrators, students, and those providing on-line tutorial support. Projections on usage must be based on institutional projections on student enrolments, the patterns of system usage envisaged by academics and students and realistic projections of technical developments in the equipment used by students to access the system.*

*The technical design must take account of anticipated usage, numbers of students, administrative transactions, download requirements. Realistic assumptions of student usage patterns (eg prediction of peak periods such as assignment submission or downloads of essential material) should be used in estimation of server and connectivity requirements. Arrangements for backup, archiving and recovery should be specified as an integral element of the technical specification.*

*Courses that exploit electronic systems to distribute course content but do not facilitate active learning will not score well against this benchmark. Poor performance indicates that the institution should take steps to ensure its academic and other staff are supported in the acquisition of new pedagogic skills addressing the following issues.*

*E-Learning offers many opportunities for multiple embedded formative assessment and learning reinforcement loops. Course designers should exploit the interactivity of e-Learning delivery to embed opportunities for self assessment.*

*When delivered by e-Learning the materials should be designed to maximise the use of interactive techniques to provide opportunity for student self assessment of progress towards learning outcomes. The predicted expansion of the availability of readily accessible repositories of learning objects may enable institutions to augment their own inventory of self study materials and provide their students with a wider range of self study materials than current practice allows.*

*Assessment design should address group outputs, individual contributions to the group outputs, individual use of group working tools and individual group working skills. Group peer assessment may be an appropriate input to the assessment process.*

## **Comments:**

At Dalarna University, there is a technical infrastructure that has the possibility to support both academic and administrative functions and it is maintained by the NGL-Center (Next Generation Learning). There are documents formulating the policy and order of process for the technical infrastructure and it consists of several levels of responsibilities from the University president (as the owner of the system) to the systems engineer<sup>1,2</sup>. There is a computer network capable of registering students to courses and programs, distributing of e-Learning materials to students, maintaining and updating records of student performance and facilitating communication between the institution, the students, central staff and affiliate staff.

To make the e-Learning system fit for purpose there is collaboration with representatives of the nursing education program (i.e. teachers). However, no systematic survey of stakeholder requirements is performed. The NGL-Center sends out a questionnaire asking the personnel for perceptions of the service provided, but the questionnaire does not contain view points and expectations on the e-Learning environment. Several years ago, the e-Learning environment was mentioned, but not clearly focused, in an overall survey regarding the work environment. The students are not addressed at all.

Within the nursing education program there are no systematic activities in the acquisition of new

pedagogic skill addressing the issue of active eLearning. For example, there is yet no systematic system for collegial pedagogical discussions, collegial learning, exchange of knowledge, courses concerning eLearning strategies etc. However there is an effort for strategic plans of the nursing education program, i.e. for the subjects of nursing and medical sciences, which will contain stated goals, activities and future needs of the institution focusing on eLearning strategies. At the moment there are no systematic technical foresight activity undertaken within the nursing education program to inform decision-making<sup>3,4</sup>.

However, according to the effort of the entire Dalarna University and the vision to be one of the leading players in the NGL project, where learning is based on collaboration and possibilities for the individual to form his or her own studies, the eLearning requirements are sufficiently integrated with the longer term IT infrastructure plans of the organization<sup>5</sup>.

At large the server capacity concerning streaming of lectures, learning platform and management systems is sufficient. However, problems do occasionally occur with the on-line system used for seminars. On the other hand, there is some uncertainty concerning the cause of these problems; it might depend on the student's own on-line connectivity and/or technical equipment.

The technical infrastructure does not fully support the interaction between teacher and student, and between student and student. For example, there are often problems concerning delay in sound transfer during on-line seminars, delay in sound and picture during streamed lectures. Furthermore, the technical infrastructure does not support interaction between student on-line and student at campus during streamed lectures, and not fully the interaction between on-line student and the teacher. Students on-line can interact with the teacher via chat, however not orally or visually. Neither can students at home directly interact with students at campus as the teacher is the only one seeing the chat comment. So the teacher has to read the comments out loud. However, all on-line students can see one another's comments, if chosen by the one writing the comment. The on-line students can choose between sending the comment to only the teacher, only the other members of the audience, or to both. Oral comments of students at campus cannot be heard by students at home, but must be cited by the teacher.

The choice of the LMS (Learning Management System, i.e. Fronter), as a part of the VLE system was governed out of the needs of the teachers. The purpose was and is to communicate and inform about training via our LMS. The possibility to communicate and follow lectures via LMS would have been preferable but it did not work. For that reason there is two systems, one for the seminar (Adobe Connect) and another for lecture/streaming (video chat). The design or implementation is thought to directly be related to the purpose (i.e. to lecture, inform, and conduct seminars).

The LMS is scalable and technically it should hold over time. Regarding the use of Adobe Connect the Dalarna University has its own servers in order to meet the power needed. In the case of streaming, the overall pursuit is to use systems that do not require special plug-ins or otherwise. The ambition is to make it as easy as possible for the students to use. The common denominator is to scale down to be able to employ a minimal relative effective functionality.

Documents;

1. <http://www.du.se/Global/dokument/Styrdokument-ny/Information,%20IT%20och%20media/Handl%C3%A4ggningsordning/Handl%C3%A4ggningsordning>

[g%20f%C3%B6rvaltning%20av%20IT-system.pdf](#);

2. <http://www.du.se/Global/dokument/Styrdokument-ny/Information,%20IT%20och%20media/Policydokument/IT%20policy.pdf>.

3. Verksamhetsplan för 2013 Medicinsk vetenskap

4. Verksamhetsplan för omvårdnad, 2013

5. <http://www.du.se/Global/dokument/Styrdokument-ny/Ekonomi,%20m%C3%A5l%20och%20verksamhet/Plan/Strategisk%20handlingsplan%202010-2015.pdf>

19. The **reliability and security** of the delivery system should have been rigorously **tested** beforehand and appropriate measures should be in place for system recovery in the event of failure or breakdown.

Answer: Largely adequate

### Comments;

Considering the difficulties in testing and simulate the actual load of the LMS the Dalarna University has decided to convey the management of LMS to the distributor of the system. They are best suited to restore breakdown and management of the continuous operation.

As for Adobe Connect, the Dalarna University has its own servers (dual) and load balancers. The system is also over-sized to optimize the operation and safety. Should any of the servers fail, then all traffic will automatically move over to the other server without users noticing. Our system works as a backup-system for the national SUNET

The Dalarna University has made major investments with regards to streaming, continuously upgrades of the systems, and efforts to eliminate sources of error to ensure operation. The chosen contractor for the system tools has high quality gear (i.e. computers, sound cards and graphics cards). The server software is highly scalable and adaptable, and also acknowledged.

It also allows us to grow and reach new types of target devices (eg, smartphones, tablets, etc.).

20. Appropriate provision needs to be made for **system maintenance**, monitoring and review of performance against the standards set and against improvements as these become available.

Answer: Largely adequate

### Comments;

LMS, streaming and Adobe Connect have extra servers on which new versions can be tested before an eventual upgrade of the regular servers. There is a group of IT technicians responsible for continuous system maintenance.

21 This benchmark expands on the previous statement and applies the principle of effective professional management to the delivery of services. Attention to the following factors is necessary to ensure good performance.

Technical requirements of the system are monitored on a regular basis. IT professionals operate the system to the standards commonly encountered in the commercial customer service sector.

Comprehensive documentation of operational procedures are evident, logbooks and other routine record keeping should demonstrate whether the standards set are being achieved.

The system must allow for data collection on many aspects of its operation and the use that users make of the system. Monitoring the patterns of use by students and staff directly supporting their study is a source of information for improvement in pedagogical as well as technical aspects.

Answer: **Partially Adequate**

#### **Feedback:**

*The design and management of the VLE should support the achievement of pedagogic objectives and course assessment strategies and this should be evident in the processes used to acquire, implement and manage the system.*

*The systems must allow for management of all processes from course authoring to delivery of the course materials to students and recording their performance. The system requires integration of many preexisting systems within an institution, eg its student registration system. Some institutions may choose to implement a VLE by an internal systems integration project.*

*The core of the virtual learning environment is the system that undertakes the delivery of eLearning materials to students. Its facilities influence the nature of the teaching process and student interactions that can be offered and impact on the work of course designers and students.*

*eLearning resources should be selected to meet the requirements of target users (learners and teachers) and the providing organisation. The eLearning system should address the needs of users for easy access and high quality interaction with the learning materials.*

*The VLE will interface with institution systems that manage information on student registration, performance and finance and it is essential that all are confident in the effectiveness and security of information interchange across these boundaries.*

#### **Comments;**

The system support the current learning activities. However, we need to develop clearly stated pedagogical models and objectives, which will challenge the design and management of the VLE. Within the nursing education program there are pedagogical elements which are not performed on-line, for example, nursing specific practical training, laboratory practical elements, and communication exercises. Perhaps there are technical solutions available to reduce the number of elements nowadays based on campus, however today there are no activities related to explore or develop this. In addition, the clinical education elements are situated in the region of Dalarna.

An identified problem is that rather than have used the eLearning environment to pedagogical development efforts, the traditional campus-based pedagogical strategies have been transferred into the eLearning systems. The VLE system allows for management of course authoring, delivering of course materials to students and recording their performance, and is integrated with the student

registration system.

Course evaluation strategies are supported by the VLE system.

The on-line systems support course assessment in a range of styles; seminars, oral examination, on-line submitted essays, and provide opportunities for remedial feedback. However, the system does not in all aspects support individual on-line written exams, corresponding to traditional campus based exams.

Regarding conventional assessments, e.g. essays, the technical aspects of the VLE system is sufficient in supporting secure transit and to communicate marks and comments. There is a system for detection of plagiarism, however not yet systematically implemented in the nursing education program.

The students have access to their up to date assessment record at all times through the tool, "My Pages".

The VLE system enables students to interact with all features of the learning materials as intended by the course developers, without degradation of intended functionality or interactivity. Today the responsibility regarding eLearning materials (i.e. content, design, presentation, delivery etc.) is up to the individual teacher. The goal is to find systems appropriate for all the educational models used.

The effort has been to reduce the amount of administrative aspects in Fronter by automating such functions as creation of new course room for example. Once a student is registered, they will automatically be added to the courses they are registered at. However, the registration of credits demands manual operation of information.

22 The information and services should be provided to all users in a logical, consistent and reliable way.

Answer: **Partially Adequate**

**Feedback:**

*Achievement of good performance in this area will be indicated by user satisfaction. Satisfaction should be based on ease of access, completeness, relevance, up-to-date information, coherence, consistence, etc.*

*The eLearning system and resources must demonstrate ease of use for the full range of target users, including people with disabilities.*

**Comments:**

There are both pros and cons with the provided information and related services, due to several systems (i.e. external web-site, "My Pages", intranet, virtual platform with different rooms for the whole program and the individual courses). The diversity of information delivered to both teachers



and students are not too well integrated which makes it somewhat difficult to master the search pathways and diminishes the ease of access. The overall aspiration of the Dalarna University is to be able to link the different services together so as to provide a logical, consistent, and reliable learning environment.

23. All users should be confident that the systems for communication and provision of information are **secure, reliable** and, where appropriate, **private**

Answer: Largely adequate

#### Comments;

The system for communication and provision of information are secure, reliable and where appropriate, private. The Dalarna University has an extensive support system and compensates for any shortcomings. This despite, there is some imprecision in handling the personal data of students (i.e. personal code number), which might interfere with the Personal Data Act (Personuppgiftslagen, PUL)<sup>6</sup>. Problems arising are immediately reported to the developers of the systems. However, there are few assessments of the users' experiences of the systems. The students in the nursing program have recently answered a questionnaire concerning eLearning (attached to the report). This should be performed annually.

6. <http://www.government.se/content/1/c6/01/55/42/b451922d.pdf>

24. Institutional materials and information accessible through the VLE should be regularly monitored, reviewed and updated. The responsibility for this should be clearly defined and those responsible provided with appropriate and secure access to the system to enable revision and updating to occur.

Answer: **Largely adequate**

#### Comments;

Teachers have the responsibility to distribute the correct course materials and information necessary to the students via LMS. The study administrators have been instructed to make sure that there is relevant information in the LMS (i.e. course rooms), and the individual courses and those responsible (course coordinator) provide for the content (i.e. schedules, specific information regarding forms of examination, lectures etc.).

There is no automated system that checks if the material contained in the course rooms are updated and revised; this responsibility lies with the course coordinator. Manuals and the like for students and staff are continuously revised and updated. The Dalarna University has a great deal of documentation on the intranet for the teachers. There is also the *Support Information* in our LMS and the information is constantly updated and revised.

The NGL center works closely with the internet/intranet based activities at the university and the supplier of the programs used in the education. There is no centrally regulated document stating the procedures using the LMS and further. The NGL center works despite this considerably with designing manuals, films, courses, tutorials, and reviews for both students and teachers.

Dalarna University has agreements with Fronter, Adobe Connect and other suppliers. Responsible staff at the university also has a close relationship with the suppliers.

The LMS is scaled down not to dictate the format (i.e. course design), and to make the systems appropriate for the type of education that currently are in use.

At the moment there are no procedures for teachers to update their material within the systems (LMS), it is up to the teachers themselves to control and implement updates. The lectures/information produce by NGL-center are designed to meet the student's needs. Students have the ability to pause the movie, fast forward or back in them. Simplicity with respect to standards and formats is the main focus so as to facilitate easy use.

Various educational materials such as SCORM packages are possible to produce but are currently not implemented.

In lectures given live (streaming), students have the opportunity to interact with other students and their teachers. As for the recorded material posted on the LMS interactivity do not remain as a possibility.

The Dalarna University has a policy that states the access rights to the material that teachers produce<sup>7</sup>.

7. <http://www.du.se/Global/dokument/Styrdokument-ny/Information,%20IT%20och%20media/Policydokument/Upphovsr%C3%A4tt%20-%20Policy.pdf>

## STAFF SUPPORT

25 All staff concerned with academic, media development and administrative roles need to be able to adequately support the development and delivery of eLearning components. The institution should ensure that appropriate training and support is provided for these staff and that this training is enhanced in the light of new system and pedagogical developments.

Answer: **Partially Adequate**

### Feedback:

*This benchmark requires institutions to demonstrate that they provide effective support to their staff in addressing the challenges of eLearning. A good performance in this area will be achieved by*

*institutions that have secured the enthusiasm of a broad section of their staff not simply those who are enthused by technological developments.*

*If an institution is to integrate eLearning into the mainstream of its programs, all academic and other professional staff must be confident that they can exercise their professional skills in the knowledge that they will be adequately supported in the use of the software and technical systems that they are required to use.*

*Academic and administrative staff must have access to a comprehensive suite of training opportunities that equip them with the capabilities to operate the software and hardware necessary for them to contribute effectively in an eLearning environment.*

*Training may be provided by induction programs on appointment, training programs associated with the introduction of new systems, updating programs, on-line training materials and helpdesk services.*

### **Comments;**

The shift to eLearning has been a challenge for staff and has meant hard work on different levels and also change of attitudes. The program started in the year 2000 to use video conferencing as a way of conducting education. Since then we have come a long way, gradually adopting new techniques and to adopt and develop our pedagogy as well. Much of the work has been a slow process to change the staffs' attitudes and competence levels to use information and communication technology as a support for learning. Initially it was a small group that grasped the idea and saw the potential of eLearning. A common way of looking on it was that any implementation of eLearning was a second best option to campus-based education. This critiques has diminished over the years and more and more teachers tend to see the benefits and sometimes pedagogical use of ICT in their education. However, some teachers are of course more knowledgeable and tries new techniques and by that moves the frontier forward. Many teachers stay within their comfort zone and do not wish to challenge that further.

The University has a department for pedagogical development using ICT since long. The department has now grown larger in scale and currently comprise 12 specialists working with the provision of support to staff and students, trying out new technological applications for learning and testing out what could be useful for the university. The pedagogical aspects are in focus and often all possible functionality in an application is not provided to staff – simplicity and usefulness are hallmarks for the selection of ICT-tools. The technical department use different ways to inform academics and managers about potential use of new technologies and systems, e.g. web by descriptions in writing or produced lectures, institutional meetings or other contexts where many people gather. They also give individual support and is always open for discussion.

### *Development regarding next generation learning*

The university has developed the concept of next generation learning (NGL). NGL is a vision about learning that is based on collaboration and that can be made to suit the individual, regardless of his/her learning style, life situation and reasons for studying. Initially it had a focus of using digital technology to support learning, but now it has taken a broader stance. NGL is about a pedagogy that also drives technical development. It is also about how we can use the available technology to help meet pedagogical challenges. The guiding principle for the department is "Making learning possible". More information can be found on their web site <http://www.du.se/en/NGL/NGL-Centre/>

For example, what methods accommodate both those students who learn best in small groups and

those students who learn best with individual assignments? What do we do in a society that is developing so rapidly that even upon graduation, students in some disciplines will already be required to update their skills and knowledge? How can we create educational environments that suit not only one type of student but all types of student?

### *Support for teaching staff and students*

Teaching staff receive support from centrally placed resources that support eLearning. A suite of on-line technical support services are available – e.g. online learning modules, instructions, operative support online in real-time, access to a variety of administrative systems. See <http://www.du.se/en/NGL/NGL-Centre/Help-and-Support/> for more information. Further, an overall mail for staff in need of assistance is available. A mail to [support@du.se](mailto:support@du.se) regardless of topic comes to the right person that can give assistance.

A number of short courses and net based learning modules are provided on-line but it is up to the individual teacher to take them. There is not a systematic approach from the management demanding every teacher to take the online modules, it is up to each one to reflect over the own competence needs and address it accordingly. The content have shifted over the years, depending on the specific needs. Currently there are modules for learning about the learning management system Fronter, software Adobe Connect, Adobe Presenter, tools for check of plagiarism and how to use a smart board. The demonstrations do not only cover technical handling but also pedagogical issues. Steps have been taken so that the individual competence is discussed during annual meetings between manager and employee. Further, a module in the pedagogical course of 15 ECTS that every teacher need to attend in order to work as a teacher at the university focus on eLearning.

Technical staff gives operative support for teachers in the classroom for streaming lectures and to record them. The environment for doing this in the class-room has been simplified by the development department to the level where the teacher can do it independently without any significant problems. A smart board allows the teacher to have full control of the lecture, shifting outgoing picture between the presenter, the presentation, document camera, etc, just by a touch of a finger. The teacher also has control over when to start, pause and stop the recording of the lecture. A link to the recorded lecture is then sent by email to the course administrator for publishing in the learning management system. The presentation might have been revised slightly by the technical staff, e.g. shortening redundant recording at the very the start or finish of the lecture, or cutting out a break that was still recorded. No revisions or alterations regarding the actual lecture are made to the recording – what happened in the classroom is also recorded.

Students can easily access support on how to use all the ICT used in the educational program. There is e.g. a specific virtual room for support (called café) in Adobe Connect, the application where all the virtual seminars are held. Here both students and teachers can test their own equipment, trying out the sound and image. There is also trained specialist staff present in the room to assist anyone who needs it, at least between 08:00 p.m. until 10:00 a.m Swedish time. The extended hours are because the university has many students abroad with different time zones.

26 Pedagogic research and innovation should be regarded as high status activities within institutions with a commitment to high quality eLearning. There should be mechanisms within these institutions

for the dissemination of good practices based on pedagogical experiences and research in support of eLearning (including institutional pilot projects or good practice developed elsewhere and/or through consortia), and for the training or mentoring of new staff in such practice. Career development incentives should promote the use of eLearning.

Answer: **Partially Adequate**

#### **Feedback:**

*This benchmark is designed to assess the extent to which eLearning activity is regarded within the institution. Poor performance in this area may indicate that the achievements of staff working on eLearning developments are not widely recognized, improvement may require the introduction of training and reward structures.*

*The provision of support for staff in the pedagogy of eLearning is essential if eLearning is to be implemented as an integral component of institutional activity. The academic staff must become willing and effective users of the pedagogic techniques offered to them. Institutions must foster an environment that encourages and supports the development of pedagogic skills and expertise amongst its staff. Recognition of these in its structures of reward and esteem is an important factor. Tutorial and other support staff must be encouraged to take part in pedagogic developments. Professional development seminars and symposia on pedagogic issues need to be organized (and well attended). Internal and external publication on pedagogic issues related to eLearning must be encouraged. The institution must support the research and development of eLearning pedagogy.*

#### **Comments;**

The institution do support research and development of eLearning pedagogy. The nursing program was one of the first at the university to embark on a journey utilizing ICT for educational purposes. The University as such do also support eLearning and regard it as a hallmark for the university. eLearning is one of the characteristics that can make this university compatible in the ever changing arena of higher education. eLearning is a central feature in the Educational Strategy for the University which is under development. It is in the process of development after extensive and broad discussion in a variety of groups, unfortunately not available in English yet.

Dalarna University has established a research Centre in collaboration with Örebro university for 20 PhD students undertaking their PhD. It is a massive manifestation with the aim of researching the domain of next generation learning, where eLearning is an important aspect. The budget for the project is around 20 million Swedish crowns as a start with the intentions to find external funding over time in combination with internal funds. Discussions are held about the need of continuous development and research activity within the knowledge domain. One of the PhD candidates was a nurse, a member of the staff group, but personal circumstances led to defection from the position. As an extension of this investment, there is also an opportunity to receive internal funding for quality work, or improvement work, within the NGL-project. There is a number of identified areas in need of development. There are projects on three levels: overall university projects, focused project in specific areas, and also projects in collaboration with the surrounding society. Examples of university projects are self-paced, free start education; goal-oriented assessment and secure examination; work environment for teachers in web-based education; pedagogical merit system. There are a lot of focus projects and e.g. among them with relevance for our program: classroom response system in

lectures; self-paced free start education for tutoring education for supervisors; Patient knowledge and evidence; Effects of open web-based learning resources. Examples of collaborative projects are Co-production of education with developing countries for sustainable development; Flexible education with educators in Somaliland; Co-operation with the county council for development of learning and communication in health care. An annual conference focusing on NGL is planned to be held annually. So far the 2<sup>nd</sup> conference is planned. More information about NGL can be retrieved from the web site <http://www.du.se/en/NGL/>.

Professional development seminars and symposia on pedagogic issues is organized for all staff working in the program. The intention is to have recurrent pedagogical seminars and also to have two whole days for competence development annually. All staff has 5% of their employment dedicated for competence development. All staff employed in Nursing or in Medical science are invited to join these seminars. There are several good experiences in the group and we want to disseminate good practices based on pedagogical experiences- both what has been seen as beneficial but also troublesome for learning activities and examinations. Further, staff members are encouraged to participate on the national and even international arena regarding eLearning and higher education.

There is decisions taken at the University to establish a career development trajectory for teachers parallel to that of researchers. eLearning competence will be a important part of what will be awarded.

27 The institution should ensure that issues of staff workload and any other implications of staff participation in eLearning activities are taken proper account of in the management of courses or programs.

Answer: **Partially Adequate**

**Feedback:**

*Good performance against this benchmark will indicate that the institution has addressed the issues of change in working practice that eLearning demands. Poor performance may indicate that institutional workload planning etc. has not kept pace with technical developments and that a review process should be implemented.*

*The introduction of a new system changes well established patterns of working and formalizes interactions between groups of staff that previously operated on an accepted custom and practice basis. New formalized procedures may be regarded as an increase in workload and have a negative impact on attitudes towards the system.*

*Significant changes in operations, e.g. the introduction of devolved teaching involving tutors/mentors, may create a tier of activity that is new to some departments. The institution should therefore model the workload implications of new modes of operation and develop appropriate staffing plans.*

**Comments;**

The institution recognizes that eLearning also means a shift in focus for the teaching staff. The teachers role is changed both regarding the creation of, and participation in learning activities and also regarding relationship to and perspective on the students. Along with implementation of eLearning there has also been a shift in perspective on learning with thoughts about learning as a constructivist activity and also that learning can be enhanced in collaboration with others. The student is supposed to be more active regarding their own learning and implicitly that changes the role of the teacher. The new teacher role also comprise partly new tasks, or at least changed emphasize on tasks. Availability for students on line, responding to emails and providing responses and feed back to assignments increase. Discussion regarding reasonable response time to students questions arise. The teachers increased possibility to be mobile, and have control over the work situation makes them also vulnerable for external pressure of anticipated performance, e.g. regarding response time to mails and such. The importance of making it clear to the students in each course what they could expect is emphasized, and also to communicate the teachers expectations on the students.

There is a working agreement at the university, which is derived from a national agreement, outlining rules for teachers assignments during a working year. The agreement outlines times devoted for performing various learning activities, e.g. lectures and seminars including preparation and after-work that might be incorporated. It has been recognized by the university that the agreement is not in line with current demands on the teachers assignments. Many features related to eLearning is not satisfactory covered by the agreement, e.g. providing responses to students in emails, posting comments online in discussion forums, preparing the learning activities and curricula for online purposes. The teacher's role is changed, there is the same need for teachers, but for partly different assignments. Work is underway at the university to develop a new working agreement with the trade unions that will reflect the current type of assignments that teachers have. While waiting for that, the time plans for each course tries to devote time for what is needed, often letting administration time accommodate also "new" learning activities as outlined above, but this could be done more elaborated an accurate.

The teachers work increasingly with computers and technical devices which increases the importance to secure a safe work environment and support for the teachers to maintain a good health, both physically and psychosocially. The institution has performed an investigation of the work environment for all staff, sorting out on an individual level what support is needed. Annual rounds on the institution are performed to address the work environment. Further, it is an issue for management in discussion with each member of staff. Everyone who wants a height-adjustable desk receives it and staff is also encouraged to change working positions during the day. Chairs, headsets, keyboards and other devices can be adjusted to personal needs. Some digital reminder systems for reminding the person to be physically active during the work day have been tested and used.

A change to more mobile systems also increases the need for management to stress the notion to staff to reflect on the balance between work and leisure time. Now almost all staff has a laptop as their computer solution, smart phones are introduced in the work place to give teachers an opportunity to both be more flexible regarding telephone calls. It is also implemented to change the staffs relationship with information. Now having opportunities at the top of a finger to search the net and keep their working schedule in an electronic calendar. The flexibility for staff increases, as well as students, but with it might also come expectations and self-induced work schedules that need to be reconsidered. The teachers work is already prone to be mixed, or intertwined with leisure time. The teacher has a great deal of freedom in planning how to perform the educational tasks and need



to do it with consideration.

28 Institutions should ensure that adequate support and resources are available to academic staff including part-time tutors/mentors. These should include:

support for the development of teaching skills (including support for eLearning skills, collaborative working on-line and contributing to on-line communities which are key skills in an eLearning context)  
access to help desk, administrative support and advisory services  
opportunities to provide and receive formal feedback on their experience on the course  
procedures to handle and resolve any difficulties or disputes which may arise  
legal advice (such as copyright and intellectual property rights)

Answer: **Not Adequate**

#### **Feedback:**

*This benchmark addresses other issues relating to change in working practice caused by the introduction of eLearning, good performance indicates a degree of maturity in institutional processes relating to eLearning.*

*Effective administrative support should be provided to all staff involved in the development and delivery of eLearning courses and programs. Staff should have the access to support in the acquisition of information and media materials necessary for them to fulfill their role in the development and delivery of e-learning programs.*

*The eLearning cycle of activity may differ from that for conventional courses and the use of a centralized administrative system may allow for extensive collection of data. Administrative reporting schedules should be designed to match the pattern of teaching of eLearning programs.*

*Tutors/mentors working on a part-time basis should be provided with adequate administrative support.*

#### **Comments; (comments for partly adequate)**

##### *Support for teaching staff*

Teaching staff receive support from centrally placed resources (NGL-centre) that support eLearning. A suite of on-line technical support services are available – e.g. online learning modules, instructions, operative support online in real-time, access to a variety of administrative systems. See <http://www.du.se/en/NGL/NGL-Centre/Help-and-Support/> for more information. Further, an overall mail for staff in need of assistance is available. A mail to [support@du.se](mailto:support@du.se) regardless of topic comes to the right person that can give assistance. Further, the department also provides advisory service to teachers regarding pedagogical as well as technical issues.

A number of short courses and net based learning modules are provided on-line but it is up to the individual teacher to take them. There is not a systematic approach from the management demanding every teacher to take the online modules, it is up to each one to reflect over the own competence needs and address it accordingly. However, steps have been taken so that the individual competence will be discussed during annual meetings between manager and employee, and that

competence development time allocated might be directed towards eLearning. Further, a module in the pedagogical course of 15 ECTS that every teacher need to attend in order to work as a teacher at the university focus on eLearning. The content in online learning material for teachers have shifted over the years, depending on the specific needs. Currently there are modules for learning about the learning management system Fronter, software Adobe Connect, Adobe Presenter, tools for check of plagiarism and how to use a smart board. The demonstrations do not only cover technical handling but also pedagogical issues.

Technical staff gives operative support as well as providing a learning experience for teachers in the classroom for streaming lectures and to record them. The technical equipment in the class-room has been simplified by the development department to the level where the teacher can have control over both streaming and recording of lectures without any significant problems.

There is a continuous work going on regarding administrative support and routines for eLearning courses. The students can receive general information about courses in higher education on an national website [www.studera.nu](http://www.studera.nu) and apply to courses or educational programs at <http://www.studyinsweden.se/> . However, you will not find the nursing program via this link to the web site in English. The reason for that is that international students is not a target group for us at this point in time so we have not marketed the program internationally, we work only on a national level. Registration is performed at the university website [www.du.se](http://www.du.se) at the student portal. However, roll call is performed for new beginners in a program and persons not present are deleted from the list if indisposition have not been communicated to a common administrative mail: [studieadm@du.se](mailto:studieadm@du.se).

The development regarding routines and eLearning courses is that the student should be able to have better control themselves, and to have access to the information they need. This way the teachers do not need to be involved in too much administrative tasks surrounding the course, and can focus on the education and course curricula. Routines for students, as well as teachers, are outlined and described in the Student administrative regulations (Document DUC 2012/1037/100), e.g. how to make students register online. Students also have access to a personal tailored webpage called “[My pages](#)”. There the student can look up examination schedules and register for them, see their own study results for previous courses. Further, see a list of courses where they are currently registered and also see course participant. Furthermore, choose to drop a course or turn down admission to courses.

The screenshot shows the 'My Studies' page on the Högskolan Dalarna website. The page has a navigation bar at the top with links for 'Education', 'Student Information', 'Research', 'About Dalarna University', and 'Library'. A search bar is located in the top right corner. The main content area is titled 'My Studies' and includes a sidebar with various links such as 'Examination Schedules', 'Register To Sit an Examination', 'Registrations', 'List of Registrations', 'Drop course', 'Turn down admission', 'Study Results', 'Course Participants', 'Secure Certificate of Study', 'Official National Transcript of Records', 'Certificate of Registration', 'Apply for a Degree Certificate', 'Follow Your Degree Application', 'Apply for a Course Certificate', 'My Information', 'My Account', and 'Marketplace'. The main text explains that users can find their registered courses under 'My Registrations' and information about applied courses under 'My Applications'. A highlighted box contains a warning: 'Registrations missing for the autumn term 2012!' and a section titled 'Rights and Obligations' with a link to 'Administrative Regulations'.

The teachers have access to support and assistance in a variety of cases. There are functions and specific staff employed at the university to provide support to both teachers and students. By using the common mail address [support@du.se](mailto:support@du.se) the teachers can address whatever question or need he/she might have. There are a lot of support organizations behind that mail address. A mail to [support@du.se](mailto:support@du.se) end up in a common electronic case management system where a number of support organizations are represented, e.g. department for student service, Information department, Library, Economics department, Personnel department, IT department and Local and supply department. Thus, a lot of services is reached through this channel, e.g., help desk, IT-service, counseling, telephone exchange, technical service and janitor. Some of the support structure have their own mail addresses which will minimize the response time even further, e.g. [studentservice@du.se](mailto:studentservice@du.se). If it is not possible to send an email, there is always the possibility to address helpdesk, either by phone or in person, to get help to get in contact with the right department.

Each course has an own web site on the Learning Management System (LMS) Fronter. It is created by each course coordinator. At the completion of the course, central documentation is archived in paper format. The course coordinator send course material to an archivist at the university. Apart from that, the web site remains intact but inactive, all content is still available, both learning content and administrative documents regarding the course. The course syllabus is stored, and thus automatically archived providing historical data as well, in a specific server and is automatically linked to the course website in the LMS.

All content in an actual or previously conducted course can be accessed in the LMS, unless the web site is blocked by the course coordinator. A basic idea at the university is that all learning material and course information should be open and accessible for everybody. The university has engaged in the movement regarding open educational resources for learning, some examples are establishing the Dalarna University at iTunes <http://itunes.du.se/> and also on [YouTube](#). Further, Dalarna University's [mobile webpages](#) are available for both students and teachers.

Lectures that are streamed in real time are almost always recorded and available in the platform/classroom. The actual recorded lecture is stored on a server at the university and a link is made available to the course coordinator for posting in the LMS. There are processes for indexing and archiving recorded lectures. This way, the recorded lecture can be re-used at a later time. Much discussions have taken place regarding the ownership and copyright regulations of a recorded lecture – is it the individual teacher or the university that is the owner. There is currently a lawsuit between the trade union and the university regarding this matter. The intellectual property is always the authors, but the re-use of a recording of a lecture is not that clear. The experiences this far is that the university seldom find the need to re-use lectures without the teachers own permission. There is most often some parts in a lecture in need of revision, so the current re-use is more in case of sudden illness or other hindrance for the teacher to hold the lecture at the present time. Another scenario is when the lecture is prerecorded in Adobe Presenter, then the teacher themselves re-use the content and perhaps add minor changes to separate slides in the presentation. Discussions are held regarding the need to produce small presentations with skills training modules for re-use in clinical courses. The re-use of more static presentations, that do not change over time, gives the teachers opportunity and space to devote their time for interaction and support to the students to enhance and deepen their learning experience.

## STUDENT SUPPORT

**29.** Students should be provided with a clear picture of what will be involved in using eLearning resources and the expectations that will be placed on them. This should include information on technical (system and VLE) requirements, requirements concerning background knowledge and skills, the nature of the program, the variety of learning methods to be used, the nature and extent of support provided assessment requirements, etc.

Answer: **Largely adequate**

### Comments;

An overall introduction is given to the students through several thorough presentations during the first weeks of studying. The presentations are about the structure of eLearning at HDa, intro of the learning-platform *Frontier* etc. How to get in contact with technical support, how the library can be of help in the ELearning environment. It is also clear what kind of equipment the students need for their distance-studies. The students are given practical advices concerning their needs like an undisturbed place at home for studying. All types of lectures and many different ways to follow the lectures can be viewed (live from home, on campus and on other hours since every lecture is being taped).

For all new students the link <http://www.du.se/en/Student1/Welcome1/> is referred to and there you can find overall information about studies at Dalarna University e.g. can preparatory courses be found (<http://www.du.se/en/Student1/Service-and-support/Preparatory-Course-Prep-Course-/>) and

manuals on eg. Fronter, streamed lectures and my pages (<http://www.du.se/en/Student1/Service-and-support/Manuals/>).

The digital preparatory course is also available on Youtube (<http://www.youtube.com/playlist?list=PLB56DBA3C5647FF0A>).

At <http://www.du.se/en/Student1/Distance-studies-at-Hogskolan-Dalarna/> there's basic and specific information about distance studies and the tools used.

The students are also informed about our *Connect*-services (<http://www.du.se/connectmeeting>) which makes it possible for student/student and student/teacher seminars and other communication. Help can be given by our support; [Support@du.se](mailto:Support@du.se), HDa café (for help in Connect with sound and picture) and by phone (0(+46) 23 77 86 66 / 0(+46) 77 87 87). Opening hours of Support is 8-22 (mon – thur) and 8-15 (fri).

The students are given a log-in that gives access to Fronter and *My pages* ([http://www.du.se/en/Portal/My\\_pages/](http://www.du.se/en/Portal/My_pages/)). On My pages the students can find information about their study-results, registration to a course/program, register to sit exams (on campus or other resort) etc.

There is also an app for both iPhone and Android that's free and [www.du.se/m](http://www.du.se/m) is the du.se-site but is customized for smartphones.

There is a large amount of information material on-line but the individual has responsibility to use it. Additionally, the website is scrutinized and developed to be more interactive and easy to navigate.

**30.** Students should be provided with guidelines stating their rights, roles and responsibilities, those of their institution, a full description of their course or program, and information on the ways in which they will be assessed including eLearning components.

Answer: Largely adequate

### Comments;

#### *Regulations concerning studying*

In connection to the introductory lectures on *Fronter* and the eLearning that we conduct the students are given information of how this structure gives them flexibility and availability but also how the responsibility to assimilate the knowledge given to them by the institution is theirs. The importance of study discipline, responsibility concerning study techniques, deadlines and times for lectures, studies, seminars etc is given. At both Fronter and du.se you can find study administrative provisions that gives information about registration, courses, curriculum, schedules ,examination, appeals against decisions etc.

At <http://www.du.se/en/Student1/Welcome1/> there is a tab which leads to a pdf-broschur that gives a summary on rights and responsibilities.

(<http://www.du.se/PageFiles/3222/RightsResponsibilities.pdf>).

### *Students help/health support*

At du.se>Student>student health services (<http://www.du.se/en/Student1/Student-Health-Services/>) you can find contact information to our counselors can be found and counseling, advices and guidance can be given by our counselors.

### *Curricula/ Syllabus*

A full description of the course program (<http://www.du.se/en/Education/Program-syllabus/?programkod=VSJUG>), goals and assessment criteria is given and is always available on the web. On Fronter for example there's a program room *Sjuksköterskeprogrammet (Nursing program)* and there you can easily find all necessary information and actualities concerning the program, things that are good to know about resource-lessons, guests, clinical education etc.

**31** Students should have access to learning resources and learner support systems. The eLearning system should provide:

Answer: Largely adequate

### **Comments;**

#### *Access to library resources*

The eLearning system at the institution gives access to library recourses, both on campus and on the web (<http://www.du.se/en/Biblioteket/>).

The library offers a range of support and services. Under the tab *Search information* (<http://www.du.se/en/Biblioteket/Search/>) you can find e-journals, e-books, catalogues of our library as well as other libraries in Sweden and abroad. There's links to databases where you can search for scientific articles, you can search for theses written at Swedish universities, there's links to encyclopedias and dictionaries etc.

#### *Search and writing help*

The tab *Search and writing help* (<http://www.du.se/en/Biblioteket/Teach-yourself/>) is a self-help guide that helps you search information, how to avoid plagiarism, learn about Copywrite and renewal/request books.

#### *For distance students*

The tab *For distance students* (<http://www.du.se/en/Biblioteket/For-distance-students/>) you can find information about how you can get books sent to your nearest library and overall information about loans and searching for information.

#### *E-books, journals and databases*

The library withholds several e-resources, such as 13.000 e-journals and over 80.000 e-books. The internet-based resources are vast and the library is a large information-channel that constantly evolves (what is on the market when it comes to searching for information and what is the most suitable for the students). There is a constant monitoring the information resources and databases that are of importance in relation to the students' needs.

### *Support*

The librarians do a tremendous job when it comes to educating the students' in our program about eLearning; e.g. the first day a streaming-class is held which gives an overview about the library, the website, the catalogue, how to get access to databases and the Braille library.

Further on they tutor and guide the students' to learn how to search for scientific articles in databases and how to interpret these. There is always possible to *Book a librarian*, so you can get one-on-one time, help and guidance by a librarian to search for articles. This is offered both on campus and on Connect and this is a central part in the follow-up work.

Since the library resources are so widely available on the web the potential information-gap between distance- and campus students is barely existent at Dalarna University.

The library withholds a business plan which they work towards (Attachment 1) and a new library is being built on campus which will evolve the eLearning environment further.

### *Support for the development of key skills*

(including support for eLearning skills, collaborative working on-line and contributing to on-line communities which are key skills in an eLearning context)

Using the eLearning is encouraged by the use of forums and our Connect-service

(<http://www.du.se/connectmeeting>) where seminars, discussions and studies can be held with webcam and microphone, making it easier to take part in discussions and making the eLearning easier. Our HDa café (*Connect*) gives live help about technical difficulties (sound, camera etc.) and our support is evening open until 22.00 (Monday - Thursday. and until 15 on Fridays)

### *Advice and counseling over choice of courses and progression through the program*

Counseling concerning individual study-tempo, study breaks etc. can be given by the director of the program alongside our with study and career advisors and student administrator. Information about this can also be found on the web (<http://www.du.se/en/Student1/Study-and-Career-Advice/>).

### *An identified academic contact, tutor and/or mentor who will provide constructive feedback on academic performance and progression*

In every course there usually are several academic contacts identified that give feed-back on the performance on the course. However, there is not a single person throughout the program that has the role of tutor/mentor. This is however about to be implemented when the nursing program goes



through the coming reform.

### *Access to help desk, administrative support and advisory services*

There is a help-desk that can help with technical problems. Reception, which deals with exam extradition, gives information to our international student and gives help for all campus-based issues.

All questions concerning exams are directed to either Hema Yella Malini ([hmy@du.se](mailto:hmy@du.se)) or Roger Westlund ([rwe@du.se](mailto:rwe@du.se)).

There is an e-mail address [support@du.se](mailto:support@du.se) which goes for the whole university. Within the program there are two addresses; [ssk.adm@du.se](mailto:ssk.adm@du.se) which is specific for administrative questions and [vfu.ssk@du.se](mailto:vfu.ssk@du.se) specific for clinical education related questions. Birgitta Nilsson ([bni@du.se](mailto:bni@du.se)), Administration secretary, is the student administrator who can give an answer or give further advice concerning administrative questions.

At <http://www.du.se/en/Student1/> you can find almost all information, the student health services and there are computer labs on campus where student who may not have computers/internet at home can work. Help desk can help with questions concerning key cards, user accounts etc. The help-desk, administrative support and advisory services is available both on campus and the web.

### *Opportunities to provide and receive formal feedback on their experience on the course*

After every course a course-evaluation can be filled out by the students that then is compiled by the course- coordinator (kursansvarig) and published on the web (*Fronter*) for the students to read. Unfortunately, the course-evaluations have a very low response rate.

### *Procedures to handle and resolve any difficulties or disputes which may arise*

Conflicts in the group/class is reported and handled by program director/coordinator and if needed reported to our student union. The union also handles complaints about teachers. Students who cheat on exams or behave inappropriately are facing the disciplinary board.

### *Alumni access*

Alumni access is available (<http://www.du.se/en/Student1/Welcome-to-Dalarna-Universitys-Alumni-Network/>) which gives alumni opportunity to stay in touch after graduation.

**32.** Students should be provided with clear and up-to-date information on the range of support services available and how these may be accessed

Answer: Largely adequate

**Comments;**

In *Fronter*, news on the support-system are given and there is always someone available to answer any questions. All this information is easily found on *Fronter* under the tab *Support*.

The *Next generation learning-centre* (<http://www.du.se/en/NGL/>) work with pedagogy that drives technical development. All information about NGL can be found eg. Here

<http://www.du.se/en/NGL/NGL-Centre/> and in this brochure

<https://webmail.du.se/?task=mail&framed=1&action=get&mbox=INBOX&uid=437&part=2&frame=1>.

33 The expectations on students for their participation in the on-line community of learners are made clear both in general terms and in relation to specific parts of their course or program.

Answer: **Partially Adequate**

#### **Feedback:**

*The traditions of higher education place a high value of student participation in a community of scholarship. This benchmark is intended to evaluate how these traditions of participation are translated to the eLearning environment. Creation of a sense of academic community amongst on-line students is intended to fulfill a number of functions with academic and social dimensions.*

*Tools for online contact enable students to share learning related concerns and problems with their peers going some way to replicate the mutual support mechanisms available to campus based students. In development of policies regarding participation in an on-line community the institution should make realistic assessment on the extent of engagement of campus based studies in equivalent activity in order to confirm that the expectations of on-line students are broadly in line with those expected of conventional students. For example is attendance at lectures and tutorials mandatory and monitored, is attendance at seminars monitored etc. The institution should provide guidelines on appropriate behaviour in respect of informal collaboration during study and apply an etiquette code to apply to the social aspects of on-line exchanges.*

#### **Comments;**

The positive factors of our eLearning is strongly highlighted with the arguments of flexibility, availability and individualizing the learning process and the importance of taking part in the online community (*Fronter*, the forums in *Fronter*, the use of (*Connect*) is essential in the eLearning environment. Several tools, mentioned above, are given so that communication and participation is made as easy as possible through the entire program. There is also a manual that concerns the subject on etiquette on the web, or “*netiquette*”.

[http://ikt.du.se/manual/connect/pdf/etikett\\_en.pdf](http://ikt.du.se/manual/connect/pdf/etikett_en.pdf) (<http://www.du.se/manuals> > the heading *Adobe Connect*)