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## Design technology of elective courses of information profile

The article considers the issues of developing the content of elective courses of information profile. The authors show basic points of intersubject communications of computer science with other academic disciplines, extensive use of the conceptual apparatus, methods and tools inherent in this branch of science, the study of almost all subjects of information profile; significance of the study course profile information for the formation of the key competencies of graduates, acquisition of educational achievements demanded on the labor market; exclusive role of the study of computer science in the formation of modern scientific picture of the world, integrative role of Informatics in the content of the common man formation, allowing to associate the conceptual apparatus natural, humanitarian and philological disciplines. The technology of the content construction of elective courses for information profile. The basis of elective courses laid curriculum development, which should take into account the interests of the student, the possibility of teaching staff and material and technical equipment of the school. Moreover, some elective course should be based on modular technology to the student was able to start his master virtually any point in time. Flexible path of development will take into account the individual characteristics of each student.

*Keywords:* elective course, information profile, computer science, learning outcomes, feedback, assessment, institutional technology, blended course, communication, content.

There are still a number of factors to consider when designing course of the information profile once you have created learning outcomes, aligned them with your assessment plans and considered how you might deliver it. These include how to:

- Choose and organise content;
- Design suitable learning and assessment activities both inside and outside the classroom;
- Use technology as support when appropriate, and
- Provide feedback to the students.

In this article we will look at each of these aspects in turn.

*Choosing and organising content.* Once the outcomes, skills and abilities that your course aims to develop have been established, the selection and ordering of content is obviously vitally important. In your case, the content — at least in terms of a list of topics — may have been determined by someone else. Hopefully, however, you have at least some choice in the detail of what is to be included, and perhaps over certain elements and the order that the topics will be covered. It is even more likely that you have choice over what you emphasise and the way that you convey it [1].

The figure marked thematic planning structure on courses of information profile (Fig.)

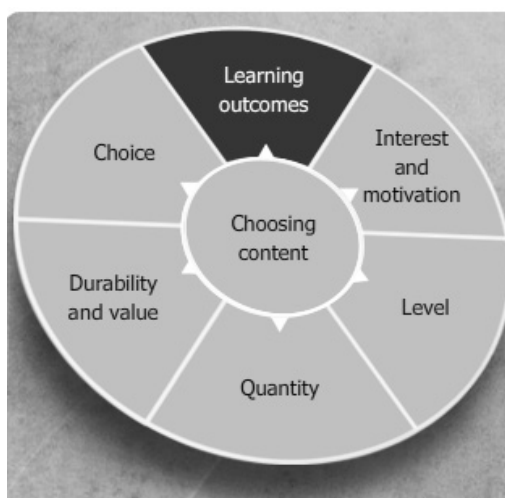


Figure. Choosing and organising content

*Choice.* Is there a good reason that all the students need to cover the same content and learn it in the same way? If not, are you offering as much choice as you could in terms of the subject content? Could you also offer more student choice when it comes to the tasks set and the modes of assessment?

*Learning outcomes.* Learning outcomes of courses to information results should answer the following questions: Is there a clear and consistent relationship between the content you envisage and the learning outcomes? Are all the outcomes sufficiently addressed.

*Interest and motivation.* Is the content selected going to interest the students? Is its relevance clear? Students are more likely to be motivated and interested in learning if they can see relevance. Try to quantify why someone would need to know and/or be able to do this now, or in the future.

*Level.* Is the content accessible to students at this level? Is there sufficient connection to what they already know? Look for ways to explicitly build on what students should know already and ensure that the order of topics is the most appropriate, from a student perspective, to make the content accessible yet not too easy.

*Quantity.* There is a tendency to pack the curriculum with more than can reasonably be learnt and assimilated by the students. Less is actually more; research shows that students learn less if the curriculum is too full. Make sure the amount of content is appropriate for the learning hours the students are expected to spend on your course.

*Durability and value.* Is the content going to be of value to the students and be durable? Will they be able to see how and when it might be used in the future?

*Designing opportunities for feedback.* Feedback is vital in just about all learning contexts. What kinds of feedback are there? Positive or negative? We tend to regard feedback as being one or other of these, but in practice, the most useful feedback usually contains both. Positive feedback embraces praise, and the only problem is that in many cultures human beings are not particularly good at accepting praise, tending to shrug it off in a bid to demonstrate modesty. Positive feedback is most effective when we take ownership of it, and swell with pride about it. We therefore need to help our students become more adept at making the most of the positive feedback they receive - whether from us, of from each other, or from anyone else. However, 'negative' is an unfortunate word, and 'critical' (or at least 'constructive') is much more acceptable for the elements of feedback which are not just praise and affirmation. Human beings are often not too adept at making best use of critical feedback. We may instinctively become defensive, and close the doors to really analysing the feedback and adapting our actions on the basis of it. Yet learning by trial and error is a perfectly natural and valid way of learning, and depends on making optimum use of feedback about mistakes [2].

How can we best give feedback to students? We can select from a wide range of processes, but we also need to address as many as possible of a range of qualities and attributes in our strategy for providing feedback. For example, feedback needs to be:

- *Timely* - the sooner the better. There has been plenty of research into how long after the learning event it takes for the effects of feedback to be significantly eroded. Ideally feedback should be received within a day or two, and even better almost straightaway, as is possible (for example) in some computer-aided learning situations, and equally in some face-to-face contexts.

- *Intimate and individual.* Feedback needs to fit each student's achievement, individual nature, and personality. Global ways of compiling and distributing feedback can reduce the extent of ownership which students take over the feedback they receive, even when the quality and amount of feedback is increased. Each student is still a person.

- *Empowering.* If feedback is intended to strengthen and consolidate learning, we need to make sure it doesn't dampen learning down. This is easier to ensure when feedback is positive of course, but we need to look carefully at how best we can make critical feedback equally empowering to learners. We must not forget that often feedback is given and received in a system where power is loaded towards the provider of the feedback rather than the recipient - for example where we are driving assessment systems.

- *Feedback should open doors, not close them.* In this respect, we have to be particularly careful with the words we use when giving feedback to students. Clearly, words with such 'final language' implications as 'weak' or 'poor' cause irretrievable breakdowns in the communication between assessor and student. To a lesser extent, even positive words such as 'excellent' can cause problems when feedback on the next piece of work is only 'very good' - why wasn't it excellent again? In all such cases it is better to praise exactly what was very good or excellent in a little more detail, rather than take the short cut of just using the adjectives themselves.

• *Manageable*. There are two sides to this. From our point of view, designing and delivering feedback to students could easily consume all the time and energy we have — it is an endless task. But also from students' point of view, getting too much feedback can result in them not being able to sort out the important feedback from the routine feedback, reducing their opportunity to benefit from the feedback they need most.

The research literature is clear about the potential power and importance of feedback in supporting students in the learning process. Unfortunately the literature is also very clear that generally, across the sector, and around the world, feedback is something that we do very badly.

The reason for this is that if feedback is to be effective there are a number of very important requirements that in practice are often difficult to meet. Those requirements include that it is:

• *Relational* – students are more likely to take note of feedback if it comes from someone they know and they believe knows them. Just making sure you use the student's name can have a positive effect (Handley et al, 2008).

• *Dialogic* – too much conventional feedback is a (written) monologue; a one-way communication from tutor to student. To be effective students need to engage with the feedback and this can be done very successfully through dialogue; discussing feedback, and what might be done differently next time, with the tutor but also with other students (Nicol, 2010).

• *Prompt* – feedback has a very short shelf-life (Chickering et al, 1987).

• *Linked to MOM* (motive, opportunity and means) — students will only engage with feedback if motivated and that is most likely when they can see an opportunity to put the feedback into practice. As for means, being told you are not very good at something does not in itself help to fix it. The student needs the means (reference to a website, to a chapter in the text book, to guidance materials, offer of a tutorial, or whatever) to put right their shortcomings before having another go in practice (Shute, 2008).

• *Not linked with marks or grades* – all the evidence is that as soon as feedback is linked to grading it ceases to have any beneficial effect in terms of future performance (William & Black, 1996).

The challenge is to build sufficient opportunities for feedback into course plan of information profile – and to make sure this feedback meets these requirements, especially when classes may be large and there are many other pressures on our time.

*Designing a blended course*. Studies show that students are increasingly living complicated, time-pressured lives. Many are managing their studies, family commitments and paid work. In addition, students are spending more time online for both recreational and course-related purposes. In the United States, many courses are already delivered entirely online.

For many students then, their experience of higher education is already a 'blended' one in that they are mixing their mode of study to be more flexible and supported by technology. For a lecturer designing a course, this provides real opportunities for designing technology-enhanced out-of-class activities.

*Using technology outside the classroom*. Designing a course involves thinking about both what can be dealt with during scheduled class sessions and thinking about what students would learn best outside of class. As we have already seen in this course, all activities should be clearly explained and aligned with course learning outcomes, and technology-based activities are no exception. Do they need to discuss or debate, to practise or perhaps to reflect? Having decided how you want students to learn, there are a whole range of technology and tools that you can use to support out-of-class learning activities in ways which:

- Provide structure to the learning activity;
- Make the activity and its outcomes more visible to you;
- Promote sharing and even collaboration between learners;
- Motivate students by allowing them to take more responsibility for doing their own research and reporting back to other members of their group.

In reality, all courses are now blended in some way. Students are already making use of a great deal of personal and institutional technology out of class time. Your task is to make sure that the time students spend online is time well spent. You can use the combination of in-class and online activities to provide structure and feedback to what has traditionally been largely independent study, helping students to prepare for class and extend their learning from lectures, as well as developing a range of online study skills.

Specificity of the maintenance of elective courses the information profile is determined by several factors. Among the most important of them include: intense interdisciplinary connections of informatics with other academic disciplines, extensive use of the conceptual apparatus, methods and equipments, inherited in this branch of science in the study of almost all items; significance of the study course profile information for the formation of the key competencies of graduates, acquisition of educational achievements demanded

in the labor market; exclusive role of the study of computer science in the formation of modern scientific picture of the world integrative role of Informatics in the content of the common man formation, allowing to associate the conceptual apparatus natural, humanitarian and philological disciplines. It allows elective courses of information to make multifunctional profile.

In this way, teacher develops curriculum on the basis of the proposed structure technology the content of elective courses to information Profile which is a activities model of the teaching and the student learning.

### References

- 1 Rust C. Understanding the principles of course design. — [ER]. Access mode: <https://chrisrust.wordpress.com/>
- 2 Race P. Using feedback to help students to learn. England. The higher Education Academy, 2012. — P. 5–11.

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### Ақпараттық бейіндегі элективті курстарды жобалау технологиясы

Мақалада ақпараттық бейіндегі элективті курстардың мазмұнын жобалау мәселелері қарастырылған. Авторлар информатика мен басқа оқу пәндерінің пәнаралық байланыстың негізгі кезеңдерін, ақпараттық бейіндегі барлық пәндерді оқу кезінде ғылыми білімнің осы саласына жататын тұжырымдамалық аппараттың, әдістердің және құралдардың кең қолданылуын; болашақ маманның маңызды құзырлығын құруға арналған ақпараттық бейіндегі курстарды оқыту және еңбек нарығында сұранысқа ие болу мәнін; жаратылыстану, гуманитарлық және филологиялық оқу пәндерінің тұжырымдамалық аппаратын байланыстыруға мүмкіндік беретін адамның жалпы білімінің мазмұнына информатиканың ажырамас орны заманауи ғылыми әлемнің құрылуында информатиканы оқытудың ерекше рөлін атап өткен. Ақпараттық бейіндегі элективті курс мазмұнының құрылу технологиясы сипатталған және оның ерекшеліктері көрсетілген. Элективті курстың құрылу негізінде студенттің қызығушылығын және педагогикалық ұжым мен білім беру мекемесінің материалды-техникалық мүмкіншіліктерін ескеруге тиісті оқу бағдарламалары жатады. Сонымен қоса қандай да бір элективті курс студент кез келген уақытта бастап оны игере алатындай блоктық-модульдік технология бойынша құрылады. Осындай игерудің икемді траекториясы әрбір студенттің тұлғалық ерекшеліктерін ескеруге мүмкіндік береді.

*Кілт сөздер:* элективті курс, ақпараттық бейін, информатика, оқу нәтижелері, кері байланыс, баға, институционалдық технология, аралас курс, байланыс, мазмұн.

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### Технология проектирования элективных курсов информационного профиля

В статье рассматриваются вопросы разработки содержания элективных курсов информационного профиля. Показаны основные моменты межпредметных связей информатики с другими учебными дисциплинами, широкое использование понятийного аппарата, методов и средств, присущих этой отрасли научного знания, при изучении практически всех предметов информационного профиля; значение изучения курсов информационного профиля для формирования ключевых компетенций выпускника, приобретения образовательных достижений, востребованных на рынке труда; исключительная роль изучения информатики в формировании современной научной картины мира; интегрирующая роль информатики в содержании общего образования человека, позволяющая связать понятийный аппарат естественных, гуманитарных и филологических учебных дисциплин. Описана технология построения содержания элективных курсов информационного профиля. Выделена специфика содержания элективных курсов информационного профиля. В основу разработки элективных курсов положены учебные программы, которые должны учитывать интересы обучаемого, возможности педагогического коллектива и материально-техническое оснащение учебного заведения. При этом любой элективный курс должен строиться по блочно-модульной технологии, чтобы обучаемый смог начать его осваивать фактически с любого момента времени. Именно гибкие траектории освоения позволяют учесть индивидуальные особенности каждого обучающегося.

*Ключевые слова:* элективный курс, информационный профиль, информатика, результаты обучения, обратная связь, оценка, институциональная технология, смешанный курс, связь, содержание.