The Present-Day Tendencies of Teaching Informatics in Ukraine

Oleg Spirin
Department of Information Technology
Zhytomyr Ivan Franko University, Ukraine

som@zu.edu.ua

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- **Major Features of the Course in Informatics at Secondary Schools**
- **Peculiarities of Teaching Informatics at School**
- **Some Prospects of School Informatics in Ukraine**

Major Features of the Course in Informatics at Secondary Schools

- main objective
- theoretical basis
- practical skills
- main topics and their sequence for the senior forms

List of the main topics

1. Information and informational processes.
2. Information system.
3. Operational system.
4. Fundamentals of disc handling.
5. Application teaching software.
6. General-purpose application software
7. The Internet.
8. Basics of algorithmization and programming.

Peculiarities of Teaching Informatics at School: Existing Syllabi

Table 1. Here are the main components of the course of informatics

Topic	Amount of hours
Introduction. Information and informational processes	**3** hours
Information system	**5** hours
Operating systems	**9** hours
Basic skills of disk handling	**5** hours
Application software	**46** hours
INTERNET and its basic possibilities	**6** hours
Fundamentals of algorithmization and programming	**28** hours

Peculiarities of Teaching Informatics at School: Further Changes in the Existing Syllabi

- **The first line** of syllabi
  universal-profile forms and those specializing in Philology, the Humanities, Fine Arts and sports
  (1 hour per week in the 10^{th}-11^{th} forms, total **70** hours); Table 2.
- **The second line** of syllabi
  forms specializing in physics, mathematics, biology, chemistry and technology
  (2 hours in the 10^{th}-11^{th} forms, total **140** hours);
- **The third line** of syllabi
  forms specializing in deep study of mathematics, informatics and ICT
  (2-4 hours in the 8^{th}-9^{th} forms, total **140-280** hours and
  4 hours in the 10^{th}-11^{th} forms, total **280** hours).

Table 2. Distribution of topics for universal-profile schools

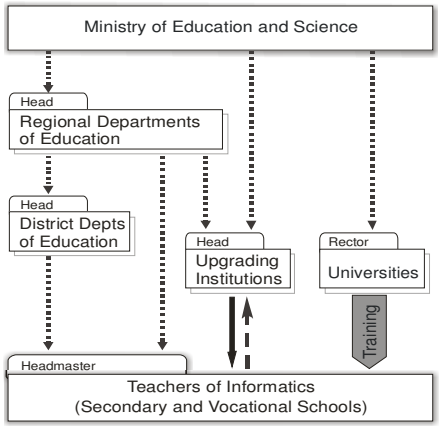
#	Topic	Hours		
		Total	**10** form	**11** form
1.	**Introduction. Information and informational processes.**	**2**	**2**	
2.	**Information systems and their components.**	**6**	**6**	
3.	**Application teaching software**	**4**	**4**	
4.	**General-purpose application software** (graphic and text processors, computer presentations, electronic worksheet, databases)	**34**	**14**	**20**
5.	**INTERNET**	**6**	**6**	
6.	**Computer simulation. Basics of algorithmization and programming.**	**12**		**12**
7.	**Float time**	**6**	**3**	**3**
8.	**Total**	**70**	**35**	**35**

Peculiarities of Teaching Informatics at School: Further Changes in the Existing Syllabi

Optional (selective) courses, such as:

- **fundamentals of information technology** – 10^{th}-11^{th} forms, total 140 hours;
- **Internet-oriented graphics programming** – 10^{th} form, total 70 hours;
- **markup language** - 10^{th}-11^{th} forms, total 40 hours;
- **object-oriented visual programming** – 10^{th}-11^{th} forms, total 140 hours;
- etc.

Peculiarities of Teaching Informatics at School: Training of teachers of informatics



6 thousand vacancies

in 21 thousand secondary schools

Control
Refresher courses
Feedback

Fig. 1. Public system of training and retraining of teachers of informatics

Peculiarities of Teaching Informatics at School: Upgrading of teachers of informatics

- **scheduled one-month courses every five years;**
- **annual competitions among the best teachers of informatics;**
- **national monthly journal "Computer at school and family";**
- **teachers' individual initiatives;**

  ("Hot Summer" project, regional Internet Olympiadas, etc.);
- **development of innovative teachware.**

Zhytomyr regional Internet Olympiada:
http://www.zt.ukrtel.net/nvschool7/inet/index04.htm

Some Prospects of School Informatics in Ukraine

- change in the structure of the school course in informatics;
- separation of the fundamental and applied aspects - two subjects: informatics and ICT;
- informatics as a subject in primary school;
- reassessment of the concept of training PC users with the shift of emphasis to algorithmization and solving typical problems;
- a broader range of optional (selective) courses;
- an increase in investments in school computer facilities;
- a considerable inflow of well-trained teachers of informatics to schools;
- formation of a professional association of teachers of informatics;
- entering the wider international environment (EU in particular).