

Web-design and visualization of environmental information

Associate Professor Antipova Olga Sergeevna

Workshops in 2023/2024

Workshop 1. Analysis of the structure, content and design of websites in the field of ecology

Progress of work:

First step: The student selects 2 websites, the topics of which are devoted to problems of ecology, geography (hydrometeorology in particular). Websites can be international, national or regional. If the website contains information in a language other than English (for example, Chinese), then the analysis is still performed in English.

Second step: the student analyzes the structure, content and design of the website. In the analysis, you need to insert screenshots of the website.

Sample analysis plan:

1. Site structure: the presence and content of standard website elements (header, menu area, content block, footer*). The main page of the site and one standard or additional page** are analyzed.
2. Site content: thematic sections, presence of a news feed, event posters, feedback (contacts, etc.)
3. Website design: presence of a corporate identity (unique for this website), logo, color design, uniformity of fonts on different pages. The presence of unique elements (animation, 3-D panoramas, etc.). Following the basic principles of design: contrast, repetition, alignment, proximity.

Third step: the student draws a conclusion about website design. In the conclusion, you need to write about the pros and cons of the design, compare 2 websites and choose the best one. Justify your opinion.

! Save the completed work in Word or PDF format and send it for review.

By completing this task, you are preparing to develop your own website layout. Good luck!

Additional explanations:

* Content of **standard website elements**:

– header – the upper part of the site, in which the logo, site name, main horizontal menu and some additional elements inherent in the style of the site or its theme are located (slider, large image, contacts, search button, buttons for switching to other languages, button versions of the site for the visually impaired, etc.);

– menu area – can be located horizontally, without entering the header area, can be located vertically on the left or right. On some sites, the main menu is located in the middle of the

page. The main purpose of these blocks is to provide additional information and direction for moving around the pages of the site;

– content block – a central content block that offers targeted information to the user. Content should be easy to read and noticeable, and should not force the user to scroll down to see information of interest. This happens, for example, when a large image or photo is located on the first screen, and information is located on the second screen;

– footer – intended for placing contact information, information about the site developers, copyright sign, social network buttons. The footer allows repetition of navigation, the location of feedback forms, a site map, a slider with partner logos, etc.

** The following **types of pages** are distinguished.

1. Unique pages are pages with blocks and elements that are not repeated further, except for cross-cutting ones. For example, the main page, the “Contacts” page, the “History” page, etc.

2. Standard pages are template solutions on the basis of which site pages with similar characteristics will be created. It can be:

– a news page that contains end-to-end elements in the form of a header and footer, as well as blocks: news title, short description, photo, publication date, news text and comment block;

– a product page in the catalog, which contains end-to-end elements in the form of a header and footer, and the following blocks: a side column with product filters according to specified parameters, a list of products in a specific category and a block of personal offers;

– a page of personalities, which contains end-to-end elements in the form of a header and footer, as well as blocks: header (last name, first name, patronymic, position, title), photograph, text block with a description of the biography.

3. Additional pages – pages that provide certain functionality and do not correspond to unique and template ones. It can be:

– text page – contains markup elements (headings, paragraphs, lists, blocks of text and images, etc.) and is a semi-template solution offering a choice from a number of prepared blocks;

– 404 page – a page that is displayed in case of some server failures or other situations. You should not neglect the design of such a page; you need to design it in an interesting way. It is not recommended to place a menu, header, or footer on such a page; one target button that returns to the site is enough.

– the search results page is an important functional block on the site. It is necessary to design the display of search results taking into account maximum convenience for the site visitor;

– login and registration pages – if the site requires user authorization, it is necessary to design convenient and understandable forms;

– an event announcement page, may contain a header, footer, title – the name of the event, a “Next” link with a text page for a detailed description of the event.

Workshop 2. Critical analysis of different types of computer visualization of environmental information

Workshop 2. Critical analysis of different types of computer visualization of environmental information

The work is designed for 2 classes (4 hours)

Progress of work:

First step: The student must find and select relevant information materials (reports, reviews, strategies, etc.) and resources (websites, interactive maps, web atlases, etc.) on environmental issues at the national (Belarus, China) and international level.

Second step: The student analyzes methods of computer visualization of environmental information in 4 sources (2 national and 2 international).

Sample analysis plan (you can add other points):

1 - determine the types of visualization (schematic, conceptual, etc.) and specific ways of displaying information (types of diagrams, use of infographics, types of animations, etc.);

2 - determine the scope of application, the functions performed by different forms of visualization (for example: bar charts are often used to depict the dynamics of precipitation and temperature indicators);

3 - draw a conclusion about the effectiveness or ineffectiveness of using specific visualization methods.

Third step: Prepare the analysis in the form of a written work with examples of illustrations (screenshots) from the analyzed sources. At the conclusion of the work, list *what methods of representing information you plan (or are already using) in your master's thesis.*

! Save the completed work in Word or PDF format and send it for review.

Good luck!

Workshop 3. Possibility of using modern software for working with computer graphics

1. Check out the **training videos**:

[PowerPoint Tutorial | SWOT Page Slide](#)

[PowerPoint Tutorial | Photo Title Slide](#)

[PowerPoint Tutorial | Presentation Design | Pictures](#)

Repeat one of the video lessons.

- by application Canva

[CANVA TUTORIAL FOR BEGINNERS 2023 \(How to start using Canva step by step\)](#)

[20 CANVA TIPS AND TRICKS // Canva Tutorial For Beginners](#)

2. Study the functionality of programs (at the choice of the undergraduate) for creating information materials in the field of geography, ecology (for example, for creating infographics, collages, brochures).

Workshop 4. Creation of information materials in the field of ecology using computer graphics

This practical assignment is aimed at encouraging undergraduates to more actively use **web design** tools for their own purposes. The lesson lasts 4 hours.

In the process of completing this task there are **2 tasks**:

1 - Choose a **topic** in the field of ecology, geography (preferably on the topic of a master's thesis) and justify its relevance and importance. The text must be prepared in the format of an oral message (2-3 sentences in English) and for a website (format for active Internet users, for two languages of the student's choice).

2 - **Collect** information (expert opinions, statistics, photos, videos, necessary technical elements (for example, fonts, geolocations of objects, etc.). Form in a database format (Excel or etc). Personal opinion is welcome (be sure to highlight how you can reflect the features of your work in web design style).

Your research is the **basis** for your **final project** in this discipline.

As a result of studying, you present the layout of the **site** (home page, news page/additional page).

Submit your finished work to the teacher (in the format of a personal consultation).

Workshop 5. Development of a website design in the field of ecology

Task:

1. Prepare a **website layout** (main page, additional page) on the topic of your research.

Examples: **Dekstop version**

GREEN FELLOWSHIP

Зарегистрироваться Войти
BY/RU/EN

Поиск

О НАС АФИША НОВОСТИ ПОЛЕЗНЫЕ МАТЕРИАЛЫ ОНЛАЙН ИГРЫ ФОРУМ НАШИ ПАРТНЁРЫ FAQ

Наша площадка **ОБЪЕДИНЯЕТ**
единомышленников из разных сфер — учащихся, студентов различных специальностей, учёных, активистов и вообще всех, кто интересуется темой экологии

КАЛЕНДАРЬ СОБЫТИЙ
Апрель

ПН	ВТ	СР	ЧТ	ПТ	СБ	ВС
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

Тест: Какое мероприятие вам подойдёт?
Пройдите наш тест и узнайте, чем вы сможете заняться в этом месяце

КАЛЬКУЛЯТОР считай вместе с нами!
ОТХОДОВ

ПЛАНЫ НА ЛЕТО:
дайджест волонтерских направлений

РЕЙТИНГ НЕДЕЛИ

- 1 kseniant 20 100 очков
- 2 kasyanenko.demid 19 400 очков
- 3 green.feldsher 18 700 очков
- 4 bogdanvih2726 17 400 очков
- 5 iksanova 16 900 очков

НАШИ ПАРТНЁРЫ

- Зелёный Университет
Воспитатели эко-БУ
- iВМирЦиол
Земельно-рекреационного экологического
- iЭколенд
Семейная экопросветительская
- Школа географов, краеведов и геологов
Федеральная географическая и биологическая БУ

11-15 марта 2024 года на ФГИГ БГУ проходила "Неделя географии" - цикл занятий, посвященных популяризации географических знаний...

Olympiad 2024
Международная олимпиада по вопросам изменения климата ClimateScience Olympiad 2024

6 полезных привычек, которые помогут оставить после себя меньше отходов

Карманный экогид по пластике
[СКАЧАТЬ](#)

ОСТАЛИСЬ ВОПРОСЫ? [НАПИШИ НАМ](#)

ПРИГЛАСИТЬ ДРУЗЕЙ

ЭКО-СОВЕТ ДНЯ
Нажми, чтобы узнать

kafegeocoi@mail.ru

СТУДЕНЧЕСКИЙ НАУЧНЫЙ КРУЖОК КАФЕДРЫ ГЕОГРАФИЧЕСКОЙ ЭКОЛОГИИ ФГИГ БГУ

Mobile version:



2. Prepare a **presentation** in which:

- talk about the relevance and importance of the problem of your research, give your opinion;
- show site layout;
- tell what principles and methods of **web design** you used.

Workshop 6. Creation of an original website design on environmental issues