Модуль Жан Монне "Изучение взаимосвязи окружающей среды и здоровья человека с использованием опыта Европейского союза" (Jean Monnet Module "Interaction of environment and human health: Experience of the European Union"), № 574826-EPP-1-2016-1-RU-EPPJMO-MODULE

### I. PLANNED ACTIVITIES (max. 5000 characters with spaces

- Teaching (training course, lectures and seminars with list of subjects)
- Conferences and seminars

Координаторы: И.А. Погонышева, Д.А. Погонышев

- Published papers
- Visits
- Research
- Other planned activities

The course "Interaction of environment and human health: Experience of the European Union" 574826-EPP-1-2016-1-RU-EPPJMO-MODULE was launched in September 2016 at the Faculty of Ecology and Engineering.

## 1) Teaching.

Over the reporting period, the project team has delivered lectures and practical classes of the course "Interaction of environment and human health: Experience of the European Union" for the students of the Faculty of Ecology and Engineering.

Number of delivered lectures and seminars: 40 academic hours each of 3 years of module implementation.

Number of students attending the course: 2016-43 students; 2017-43 students; 2018-40 students.

The course "Interaction of environment and human health: Experience of the European Union" was included as <u>a credit course</u> in the curricular of Master and Bachelor Degree Ecology and Environmental Management program at the Faculty of Ecology and Engineering, Nizhnevartovsk State University.

The course "Interaction of environment and human health: Experience of the European Union" includes the following major modules:

- Introduction. Environment and health in European Union and Russia.
- Ecological factors influencing human health.
- European Environment and Health Process.

### Lectures

- 1. Introduction. Foundations of health and environment interaction. Classification of ecological factors influencing human health (2 academic hours).
- 2. Environment and health in European Union. European studies (2 academic hours).
- 3. Role of international organizations concerning environment and health (2 academic hours).
- 4. European Charter on Environment and Health. WHO European Center for Environment and Health. European Committee on Environment and Health (2 academic hours).
- 5. European Environment and Health Process (2 academic hours).
- 6. Proof of interconnectedness of the environment and human health (2 academic hours).
- 7. Improving the environment and health in Europe. Inequalities in environmental conditions and health in Europe (2 academic hours).
- 8. Main concepts of WHO "Health-2020" policy. EU Environmental and Health Action Program until 2020 (2 academic hours).
- 9. Environment and children in WHO Europe (2 academic hours).
- 10. Preventative measures concerning better protection of the environment in the European Union (2 academic hours).

#### Seminars

- 1. Current EU-financed research on the environment and human health. EU research programs in the area of environment and human health (2 academic hours).
- 2. Legal regulations for European Environment and Health Process (2 academic hours).

- 3. Assessment methods for sanitary and epidemiological wellbeing of citizens in EU and Russia (2 academic hours).
  - 4. Climate change and human health. European studies (2 academic hours).
- 5. Chemical safety and public health in the EU (2 academic hours).
- 6. Air quality. Common sources of air pollution in the European Region (2 academic hours).
- 7. Water supply and sanitary in the EU. (2 academic hours).
- 8. Diseases related to the environment and acknowledged in EU and Russia. (2 academic hours).
- 9. Safe water supply and sanitary in the EU and Russia (2 academic hours).
- 10. Chemical safety and public health in the EU and Russia (2 academic hours).

Total – 40 academic hours.

#### Final examination

## 2) Conferences and seminars

- Awareness-raising seminar "Jean Monnet: A successful case of project proposal" (2016)
- Research and practice seminars:
- Environment and Human Health: Experience of the European Union (2017)
- Interaction between Environment and Human Health: Experience of the European Union (2018)
- Session "Environment and Human Health" at the Russian student research and practice conferences in 2017, 2018, 2019.
- Competitions of student research projects within the Session "Environment and Human Health" for Russian school, college and university students in 2017, 2018, 2019.
- Panel Session "Environment and Human Health: Experience of the European Union" at the Final International Research and Practice Conference "Intercultural Dialogue and Collaboration of the European Union and Russia: Implementation of Jean Monnet Projects at Nizhnevartovsk State University" (2019).

## 3) Published papers

Over the reporting period, project team published 7 papers, including 3 study guides, 2 proceedings of research and practice seminars, 2 papers published in peer-reviewed journals.

#### List of published papers:

- 1. Pogonysheva I.A., Pogonyshev D.A. EU countries and European education through the eyes of students of Nizhnevartovsk State University. In: Achievements of Modern Science and Education. Vol. 1. Part 2. 2017. pp. 124-127. (In Russian). <a href="http://modernscienc-org.1gb.ru/release/2017/USNO\_2017\_2\_1\_tom.pdf">http://modernscienc-org.1gb.ru/release/2017/USNO\_2017\_2\_1\_tom.pdf</a>
- 2. Environment and Human Health: Experience of the European Union. Proceedings of the research and practice seminar. Nizhnevarovsk: Nauka i praktika Publ., 2017. 68 p. (In Russian). ISBN 978-5-6040185-0-7. <a href="https://www.konferenc.com/2018-s">https://www.konferenc.com/2018-s</a> <a href="https://www.konferenc.com/2018-s">https://www.konferenc.com/2018-s</a>
- 3. Studying the interaction of environment and human health using the experience of the European Union. Proceedings of the research and practice seminar. Nizhnevartovsk: Nauka i praktika Publ., 2018. 92 p. (In Russian). ISBN 978-5-9907782-9-0. http://nvsu.ru/ru/otd international/1966/Sbornik materialov seminara 22.11.18.pdf
- 4. Pogonysheva I.A., Pogonyshev D.A. Current problems of interaction between the environment and human health in the EU countries. Sources review. In: Gigiena i sanitariya [Hygiene and Sanitation], 2019 (5). (In Russian) (to appear).

# The module coordination team has developed and published various study guides and materials:

1. Course's study program "Interaction of environment and human health: Experience of the European Union" for bachelor and master students of the Faculty of Ecology and Engineering:

Interaction of environment and human health: Experience of the European Union. IN: Development and implementation of copyrighted educational programs: proceedings of a research and methodological seminar (March 12-16, 2017). Nizhnevartovsk: Nauka i praktika Publ., 2017, pp. 112-114. ISBN 978-5-9907782-4-5. <a href="http://nvsu.ru/ru/otd\_international/1966/Pogonysheva\_I. A., Pogonysheva\_D. A\_Okruzhayushhaya\_sreda\_i\_zdorove\_cheloveka.pdf">http://nvsu.ru/ru/otd\_international/1966/Pogonysheva\_I. A., Pogonysheva\_D. A\_Okruzhayushhaya\_sreda\_i\_zdorove\_cheloveka.pdf</a>

2. Handbook of teaching materials:

Pogonysheva I. A., Pogonyshev D. A., Yakubova L.A. (2017). Environment-human-social policy (experience of the European Union). Nizhnevartovsk: Nauka i praktika Publ., 62 p. DOI:10.5281/zenodo.1045286. <a href="https://elibrary.ru/download/elibrary\_30520848\_64160897.pdf">https://elibrary.ru/download/elibrary\_30520848\_64160897.pdf</a> <a href="https://nvsu.ru/newsfiles/2017/3133/Okruzhayushchaya%20sreda-chelovek-sotsialnaya%20politika%20(opit%20stran%20Evropeyskogo%20Soyuza)%20.pdf">https://nvsu.ru/newsfiles/2017/3133/Okruzhayushchaya%20sreda-chelovek-sotsialnaya%20politika%20(opit%20stran%20Evropeyskogo%20Soyuza)%20.pdf</a>

The handbook contains educational and methodical materials developed by teachers of Nizhnevartovsk State University as part of supported Jean Monnet Modules.

3. Recommendations for the protection of public health in modern environmental conditions based on data WHO Regional Office for Europe, uploaded at the project website and Erasmus + portal of NVSU. http://nvsu.ru/ru/otd\_international/1966/EHkspertnye\_rekomendacii\_ZHM.pdf

## 4) Research and publications:

- The team has conducted a survey "EU countries and European education through the eyes of students of Nizhnevartovsk State University" among NVSU students to determine their level of awareness about the EU countries and European education; the results were analyzed and published:

Pogonysheva I.A., Pogonyshev D.A. EU countries and European education through the eyes of students of Nizhnevartovsk State University. In: Achievements of Modern Science and Education. Vol. 1. Part 2. 2017. pp. 124-127. (In Russian) <a href="https://elibrary.ru/download/elibrary\_28401753\_46287515.PDF">https://elibrary.ru/download/elibrary\_28401753\_46287515.PDF</a>

- The team has studied actual problems of the interaction between the environment and human health in the EU countries and submitted an article in a Scopus journal based on the results of the study:

Pogonysheva I.A., Pogonyshev D.A. Current problems of interaction between the environment and human health in the EU countries. Sources review. In: Gigiena i sanitariya [Hygiene and Sanitation], 2019 (5). (In Russian) (to appear).

Research and papers published by master and postgraduate students within the module:

1. Environment and Human Health: Experience of the European Union. Proceedings of the research and practice seminar. Nizhnevarovsk: Nauka i praktika Publ., 2017. 68 p. (In Russian). ISBN 978-5-6040185-0-7.

https://www.konferenc.com/2018-s https://elibrary.ru/item.asp?id=32345336

#### Papers:

- 1. Kurtukova N.V. Environmental aspects of the nutrition in the EU countries. 2017. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345339\_83910195.pdf">https://elibrary.ru/download/elibrary\_32345339\_83910195.pdf</a>
- 2. Lunyak I.I. Studies by the WHO Regional Office for Europe on the effects of environmental noise on human health. 2017. (In Russian) https://elibrary.ru/download/elibrary\_32345340\_73567941.pdf
- 3. Lunyak I.I. European studies on the effects of climate change on human health and the environment. 2017. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345341\_65427071.pdf">https://elibrary.ru/download/elibrary\_32345341\_65427071.pdf</a>

- 4. Postnikova V.V. Studies in the WHO European Region related to the effects of heavy metals on the human body. 2017. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345342\_44554421.pdf">https://elibrary.ru/download/elibrary\_32345342\_44554421.pdf</a>
- 5. Ryabukha A.V., Arishev A.I. Some aspects of requirements for surface water quality and monitoring of water bodies in the EU. 2017. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345346\_83936288.pdf">https://elibrary.ru/download/elibrary\_32345346\_83936288.pdf</a>
- 6. Semochkina M.A. European experience in maintaining the quality of drinking water. 2017. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345344\_13088204.pdf">https://elibrary.ru/download/elibrary\_32345344\_13088204.pdf</a>
- 7. Tkacheva M.D. European Union experience in regulating waste management activities affecting human health. 2017. (In Russian) https://elibrary.ru/download/elibrary\_32345347\_80617043.pdf
- 2. XX All-Russian Student Research and Practical Conference. Nizhnevartovsk: Nizhnevartovsk State Universit, 2018. 463 p. (In Russian) ISBN 978-5-00047-445-7 <a href="http://nvsu.ru/ru/otd\_international/1966/2018.pdf">http://nvsu.ru/ru/otd\_international/1966/2018.pdf</a>

### Paper:

- 1. Musorina I.A. Biological human monitoring in the WHO European Region. 2017. (In Russian)
- 3. Interaction of environment and human health: Experience of the European Union. IN: Development and implementation of copyrighted educational programs: proceedings of a research and methodological seminar (March 12-16, 2017). Nizhnevartovsk: Nauka i praktika Publ., 2017, pp. 112-114. ISBN 978-5-9907782-4-5. <a href="http://nvsu.ru/ru/otd\_international/1966/Pogonysheva\_I.\_A.,\_Pogonyshev\_D.\_A\_Okruzhayushhaya\_sreda\_i\_zdorove\_cheloveka.pdf">http://nvsu.ru/ru/otd\_international/1966/Pogonysheva\_I.\_A.,\_Pogonyshev\_D.\_A\_Okruzhayushhaya\_sreda\_i\_zdorove\_cheloveka.pdf</a>

#### Papers:

- 1. Lunyak I.I. Research in the framework of the relationship of the environment and children's health in the EU countries. 2018. (In Russian) <a href="http://doi.org/10.5281/zenodo.2525390">http://doi.org/10.5281/zenodo.2525390</a>
- https://explore.openaire.eu/search/publication?articleId=od 2659::fb9f0edead54a6b109 8c1138c3bcbb64
- 2. Postnikova V.V. Studies of the effects of atmospheric pollutants on human health in the WHO European Region. 2018. (In Russian). <a href="https://doi.org/10.5281/zenodo.2525396">https://doi.org/10.5281/zenodo.2525396</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">https://explore.openaire.eu/search/publication?articleId=od</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">2659::5883a58937d4bd0b6</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">2659::5883a58937d4bd0b6</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">2659::5883a58937d4bd0b6</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">2659::5883a58937d4bd0b6</a>
- 3. Gontazhevskaya E.N. Measures to solve sanitation and water supply problems in third world countries (EU experience). 2018. (In Russian). <a href="http://doi.org/10.5281/zenodo.2525398">http://doi.org/10.5281/zenodo.2525398</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">https://explore.openaire.eu/search/publication?articleId=od</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">2659::f0ae6466976ad0263</a> <a href="https://explore.openaire.eu/search/publication?articleId=od">0b7db048d6407ca</a>
- 4. Egorova V.I. Assessment of surface waters via algae indication (EU experience). (In Russian). <a href="http://doi.org/10.5281/zenodo.2525400">http://doi.org/10.5281/zenodo.2525400</a>

https://explore.openaire.eu/search/publication?articleId=od 2659::94772807acd9f93b9 75d59556c6b8128

- 5. Semochkina M.A. Algae biotechnologies in the EU countries. 2018. (In Russian). http://doi.org/10.5281/zenodo.2525402
- https://explore.openaire.eu/search/publication?articleId=od 2659::56d2fb4defd2909dad b966363f1d21f4
- 6. Didenko I.N., Didenko N.A. Monitoring of surface waters within the EU Water Framework Directive. 2018. (In Russian).

Модуль Жан Монне "Изучение взаимосвязи окружающей среды и здоровья человека с использованием опыта Европейского союза" (Jean Monnet Module "Interaction of environment and human health: Experience of the European Union"), № 574826-EPP-1-2016-1-RU-EPPJMO-MODULE

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### http://doi.org/10.5281/zenodo.2525404

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7. Ashurova Z.M. EU and Russian experience in managing natural water quality. 2018. (In Russian). <a href="http://doi.org/10.5281/zenodo.2525406">http://doi.org/10.5281/zenodo.2525406</a>

https://explore.openaire.eu/search/publication?articleId=od 2659::66a0c6046aa4050b4 5c239aefce0c3ac 2659::66a0c6046aa4050b4

8. Izguzhina R.R. Quality of drinking water and the of epidemiological surveillance system in the EU practice. 2018. (In Russian). <a href="http://doi.org/10.5281/zenodo.2525408">http://doi.org/10.5281/zenodo.2525408</a>

https://explore.openaire.eu/search/publication?articleId=od 2659::c8bf02d6533af0d3ec 898cc5b2fdc302

## II. DESCRIPTION OF IMPLEMENTED ACTIVITIES (max.5000 characters with spaces)

# 1ST YEAR OF PROJECT IMPLEMENTATION 2016-2017

- 1. The project was launched December 16, 2016, at the awareness-raising seminar "Jean Monnet: Application experience". The team presented the modules, its strategic aim, objectives, implementation stages, events to be held, and dissemination strategy. The seminar was attended by 69 participants: members of the teaching staff, bachelor and master students of the faculty, representatives of the local ecology and environmental management business community.
- **2. Interaction with other projects**: Module coordinator, Irina Pogonysheva, took part in the Internet conference "Issues of European Integration in Russian Higher Education", held as part of the EU Issues and Values for Russian Bachelor Students project, supported by the Erasmus+ program within Jean Monnet Activities. The conference was organized by Moscow State University of Psychology and Education. (http://mgppu.ru/page/5733) and held on December 7-8, 2016.
- **3.** On April 4, 2017, NVSU held a student research and practice conference, including the session on "Environment and Human Health". The session was attended by 51 participants (NVSU bachelor, master students and teachers, school students and teachers of Nizhnevartovsk, Raduzhny, Strezhevoy).

The session included a **competition of student research projects** on Environment and Human Health among 60 research projects presented by 25 universities, 3 colleges and 7 high schools of Russia and Kazakhstan.

The competition was designed to involve students into research activity and study of environmental impact on public health in Russia and EU countries and to improve the level of education in ecology with an account for the accumulated EU experience and knowledge in the field.

All materials were published in books of proceedings of the Russian Student Research and Practice Conference of Nizhnevartovsk State University "Environment and human health" available at the university website, project website, Erasmus+ NVSU portal, e-platform of eLIBRARY.ru <a href="http://konference.nvsu.ru/konffiles/324/XIX%20stud%20konf.%20CH.%201">http://konference.nvsu.ru/konffiles/324/XIX%20stud%20konf.%20CH.%201</a> <a href="http://www.ru/ru/otd\_international/1966/Sbornik\_sekciya\_OS\_i\_zdorove\_Vseross\_stud.\_konf.\_2">http://www.ru/ru/otd\_international/1966/Sbornik\_sekciya\_OS\_i\_zdorove\_Vseross\_stud.\_konf.\_2</a>

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#### 2017-2018

### 1. Research and practice seminar

On April 16, 2017, the project team held a research and practice seminar on "Environment and Human Health: Experience of the European Union", attended by teachers, bachelor, master and postgraduate students of the Faculty of Ecology and Engineering of Nizhnevartovsk State University, as well as school and college teachers, and local ecology business representatives (60 participants in total).

The seminar was to discuss the ways to use the European experience accumulated in the field of interaction between the environment and human health.

The seminar agenda included the following topics:

- 1. European Environment and Health Process. Trends and state of environmental and health research funded by the European Union.
- 2. Human environmental health risk factors recognized in the European Union. Environmental diseases, registered in the EU countries and in Russia.
  - 3. Hazardous chemicals, xenobiotics in the environment and food.
  - 4. Environmental hygiene. Drinking water quality. Safe water supply.

The seminar included reports made by NVSU teachers, master and postgraduate students of the Faculty of Ecology and Engineering.

The event was attended by local ecology business, environmental management and public health representatives (15 participants).

The seminar proceedings were published in a book of materials available at the project website, Erasmus+ NVSU portal, e-platform of eLIBRARY.ru https://www.konferenc.com/2018-s

https://elibrary.ru/item.asp?id=32345336.

**Book of proceedings.** Environment and Human Health: Experience of the European Union. Proceedings of the research and practice seminar. Nizhnevarovsk: Nauka i praktika Publ., 2018. 68 p. ISBN 978-5-6040185-0-7.

#### Papers in the book of proceedings:

- 1. Kuznetsova V.P., Pogonysheva I.A. Climate change and its impact on public health, implementation of prevention programs in Europe. Pp. 5-12. (In Russian) https://elibrary.ru/download/elibrary 32345338 59445016.pdf
- 2. Kurtukova N.V., Pogonysheva I.A., Pogonyshev D.A. Environmental aspects of nutrition in the EU countries. Pp. 13-19. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345339\_83910195.pdf">https://elibrary.ru/download/elibrary\_32345339\_83910195.pdf</a>.
- 3. Pogonysheva I.A., Lunyak I.I., Pogonyshev D.A. Studies by the WHO Regional Office for Europe on the effects of environmental noise on human health. Pp. 20-25. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345340\_73567941.pdf">https://elibrary.ru/download/elibrary\_32345340\_73567941.pdf</a>
- 4. Pogonysheva I.A., Kuznetsova V.P., Pogonyshev D.A., Lunyak I.I. European studies on the effects of climate change on human health and the environment. Pp. 26-32. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345341\_65427071.pdf">https://elibrary.ru/download/elibrary\_32345341\_65427071.pdf</a>
- 5. Postnikova V.V., Pogonysheva I.A., Storchak T.V. Studies in the WHO European Region related to the effects of heavy metals on the human body. Pp. 33-40. (In Russian). <a href="https://elibrary.ru/download/elibrary\_32345342\_44554421.pdf">https://elibrary.ru/download/elibrary\_32345342\_44554421.pdf</a>
- 6. Storchak T.V., Pogonysheva I.A. EU policy in the field of biodiversity conservation. Pp. 48-52. (In Russian) https://elibrary.ru/download/elibrary\_32345345\_58040139.pdf
- 7. Storchak T.V., Pogonysheva I.A., Ryabukha A.V., Arishev A.I. Some aspects of requirements for surface water quality and monitoring of water bodies in the EU. Pp.53-56 (In Russian). <a href="https://elibrary.ru/download/elibrary\_32345346">https://elibrary.ru/download/elibrary\_32345346</a> 83936288.pdf

- 8. Skorobogatova O.N., Semochkina M.A. European experience in maintaining the quality of drinking water. Pp. 41-47. (In Russian) https://elibrary.ru/download/elibrary\_32345344\_13088204.pdf
- 9. Yumagulova E.R., Tkacheva M.D. European Union experience in regulating waste management activities affecting human health. Pp.57-64. (In Russian) <a href="https://elibrary.ru/download/elibrary\_32345347\_80617043.pdf">https://elibrary.ru/download/elibrary\_32345347\_80617043.pdf</a>
- **2.** On April 4, 2018, NVSU held a student research and practice conference, including the **session on "Environment and Human Health"**. The session was attended by 40 participants (NVSU teachers, bachelor, master students; school teachers and students from Nizhnevartovsk, Strezhevoy).

The session included a **competition of student research projects** on "Environment and Human Health" for Russian school, college and university students. The list of competitors included 33 projects by students of 10 Russian universities, 2 colleges and 6 high schools.

All materials were published in books of proceedings of the Russian Student Research and Practice Conference of Nizhnevartovsk State University "Environment and human health" (2018), available at the university website, project website, Erasmus+ NVSU portal, e-platform of eLIBRARY.ru

http://konference.nvsu.ru/konffiles/331/XX%20stud.%20konf.%20NVGU\_2018%20CHast%201\_Ekologiya,%20geografiya,%20elektrotehnika.pdf
http://nvsu.ru/ru/otd international/1966/2018.pdf

- **3.** On February 15, 2018, Irina Pogonysheva delivered **an open lecture** on "Health 2020: Basic Principles of the European Policy and Strategy for the 21<sup>st</sup> century" at the Faculty of Ecology and Engineering of Nizhnevartovsk State University, attended by 44 people.
- **4.** On May 15, 2018, NVSU held a **competition of bachelor and master student reports** on "European studies of the environmental impact on human health", including 35 reports, with 3 best bachelor student reports and 3 best master student reports.
- **5.** Project coordinators Irina Pogonysheva and Denis Pogonyshev took part in the international conference on Jean Monnet Programme «Excellence in European Studies» (April 19-20, 2018, Moscow)

# 3RD YEAR OF PROJECT IMPLEMENTATION 2018-2019

#### 1. Research and practice seminar

On November 22, 2018, the project team held a research and practice seminars on "Environment and Human Health: Experience of the European Union", aimed at discussing the ways to use the European experience accumulated in the field of interaction between the environment and human health.

The seminar was attended by teachers, bachelor, master and postgraduate students of Nizhnevartovsk State University, as well as **member of professional community** – representatives of local ecology, environmental and health care companies and organizations (60 participants in total).

The seminar was to discuss the following issues:

- 1. Trends and state of EU scientific research in the field of environment and health protection.
- 2. WHO European Health Policy "Health 2020". Comparing health care systems in the EU and in Russia.
  - 3. Chemical safety and public health in the European Union and Russia.
  - 4. Global climate change, climate impact on public health, European preventive programs.
  - 5. Environmental hygiene. The quality of drinking water in the EU.

#### Contributors:

Координаторы: И.А. Погонышева, Д.А. Погонышев

- 1. Pogonysheva I.A. Health care systems in the EU.
- 2. Korkin S.E. Temperature monitoring as an indicator of climate change: European Union experience at global, regional and local levels.
- 3. Skorobogatova O.N. European and Russian experience in maintaining the quality of natural waters.
- 4. Kuznetsova V.P. The effect of climate change on public health and the implementation of the European population adaptation programs.
  - 5. Lunyak I.I. Environment and children's health in Europe.
  - 6. Semochkina M.A. Algae biotechnologies in the EU countries.
  - 7. Storchak T.V. Surface water monitoring within the EU Water Framework Directive.

The seminar proceedings were published in a book of materials available at the project website, Erasmus+ NVSU portal, e-platform of eLIBRARY.ru

http://nvsu.ru/ru/otd\_international/1966/Sbornik\_materialov\_seminara\_22.11.18.pdf http://www.konferenc.com/2018-11-22

## Papers in the book of proceedings:

1. Pogonysheva I.A., Pogonyshev D.A., Lunyak I.I. Research in the framework of the relationship of the environment and children's health in the EU countries. (In Russian). http://doi.org/10.5281/zenodo.2525390

https://explore.openaire.eu/search/publication?articleId=od 2659::fb9f0edead54a6b1 098c1138c3bcbb64

2. Kuznetsova V.P. Climate change and its impact on public health, implementation of prevention programs in Europe. (In Russian). <a href="http://doi.org/10.5281/zenodo.2525394">http://doi.org/10.5281/zenodo.2525394</a>

https://explore.openaire.eu/search/publication?articleId=od\_\_\_\_\_2659::922c110e1140762a2c9a93158d75a9d1

3. Postnikova V.V., Pogonysheva I.A., Pogonyshev D.A. Studies of the effects of atmospheric pollutants on human health in the WHO European Region. (In Russian). http://doi.org/10.5281/zenodo.2525396

https://explore.openaire.eu/search/publication?articleId=od\_\_\_\_2659::5883a58937d4bd0 b655e753a473af6c4

4. Gontazhevskaya E.N., Skorobogatova O.N. Measures to solve sanitation and water supply problems in third world countries (EU experience). (In Russian). <a href="http://doi.org/10.5281/zenodo.2525398">http://doi.org/10.5281/zenodo.2525398</a>

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https://explore.openaire.eu/search/publication?articleId=od 2659::66a0c6046aa4050 b45c239aefce0c3ac

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10. Pogonyshev D.A., Pogonysheva I.A., Storchak T.V. The system of conservation of natural territories and biodiversity conservation in the EU (analytical review). (In Russian). http://doi.org/10.5281/zenodo.2525410

https://explore.openaire.eu/search/publication?articleId=od 2659::e75d789a3367d20 89879638a70f06344

**2.** On April 2, 2019, NVSU held a student research and practice conference, including the session on "Environment and Human Health". The session was attended by 41 participants (NVSU teachers, bachelor, master students; school teachers and students from Nizhnevartovsk, Strezhevoy).

The session included a **competition of student research projects** on "Environment and Human Health" for Russian school, college and university students. The list of competitors included 31 projects by students of 5 Russian universities, 3 colleges and 7 high schools.

All materials were published in books of proceedings of the Russian Student Research and Practice Conference of Nizhnevartovsk State University "Environment and human health" (2018), available at the university website, project website, Erasmus+ NVSU portal, e-platform of eLIBRARY.ru

The competition was designed to involve students into research activity and study of environmental impact on public health in Russia and EU countries, to demonstrate best student research achievements, to improve the level of education in ecology and to promote the accumulated EU experience and knowledge in the field.

Varied and relevant study subjects were divided into the following sections: environmental effect on human health, climate change and human health, human adaptation in adverse environmental conditions.

All materials will be published in books of proceedings of the Russian Research and Practice Conference of Nizhnevartovsk State University "Environment and Human Health" (2019), to be available at the university website, project website, Erasmus+ NVSU portal, eplatform of eLIBRARY.ru.

3. On April 15-19, 2019, Nizhnevartovsk State University held the Final International Research and Practice Conference "Intercultural Dialogue and Collaboration of the European Union and Russia: Implementation of Jean Monnet Projects at Nizhnevartovsk State University".

The Conference included the Panel Session "Interaction of environment and human health: Experience of the European Union" organized within Jean Monnet Module "Interaction of environment and human health: Experience of the European Union".

The event was joined by Russian and foreign environmental experts, university professors, students, graduate students, members of the academic and professional community.

The session was attended by 114 participants, including 6 reporting speakers, and 2 EU experts (Atena Groza, DAKIA Association for Sustainable Development (Romania), and Cesc Murria i Farnos, Adjunt Professor at the Department of Evolutionary Biology, Ecology and Environmental Sciences, University of Barcelona, Spain).

The conference shall be followed by a collection of papers and reports, including 15 reports of the session "Environment and Human Health" by contributors from the University of Barcelona (Barcelona, Spain); Financial University under the Government of the Russian Federation (Omsk, Russia); Tyumen State University (Tyumen, Russia); Nizhnevartovsk State University (Nizhnevartovsk, Russia); Khanty-Mansiysk State Medical Academy (Khanty-Mansiysk, Russia).

The Panel Session "Interaction of environment and human health: Experience of the European Union" was devoted to discussions of the following issues:

- 1. Trends in research of environmental impact on human health in Europe.
- 2. Health 2020, the 21<sup>st</sup> century European policy framework and strategy.
- 3. Chemical safety and public health issues in the EU countries and Russia.
- 4. Monitoring of pollutants in the European Region of the World Health Organization.
- 5. Global climate change, environmental impact, and prevention programs in Europe.

The session involved summing up Jean Monnet Module "Interaction of environment and human health: Experience of the European Union" and discussing key problems of the environmental impact on public health, ways of using the EU experience in the Russian context of environmental protection and public health.

Contributors	Report	
I.A. Pogonysheva, Candidate of Biological	Current issues of the interaction between the	
Sciences, Associate Professor, Department of	environment and human health in Europe	
Ecology, Nizhnevartovsk State University		
F.I. Petrovsky, Doctor of Medical Sciences,	Comparative analysis of health protection	
Professor, Khanty-Mansiysk State Medical	systems in the EU and in Russia	
Academy		
V.P. Kuznetsova, Candidate of Geographical	Climate change, impact on the environment	
Sciences, Senior Lecturer, Department of	and public health, implementation of	
Geography, Nizhnevartovsk State University	preventive programs in Europe	
E.Yu. Shalamova, Candidate of Biological	Substantiation of the EU experience in	
Sciences, Professor, Khanty-Mansiysk State	adapting young people to difficult natural and	
Medical Academy	social conditions through adaptive coping	
I.I. Lunyak, postgraduate student of the	EU and European education through the eyes	
Department for Ecology, Nizhnevartovsk State	of students of Nizhnevartovsk State University.	
University	Survey results	
O.V. Starkova, Senior Lecturer,	Creating a healthy lifestyle based on	
Nizhnevartovsk Medical College	environmental competencies	

The session meeting will be followed by a collection of papers and reports published online in the electronic library, official website of Nizhnevartovsk State University, and at the Erasmus + web-portal at Nizhnevartovsk State University.

The resolution was discussed and approved by the participants of the Panel Session "Interaction of environment and human health: Experience of the European Union" at the Final International Research and Practice Conference "Intercultural Dialogue and Collaboration of the European Union and Russia: Implementation of Jean Monnet Projects at Nizhnevartovsk State University". Conference participants pointed to the positive conference results in terms of expanding international and interdisciplinary cooperation

The conference was concluded with an external monitoring of projects made by Paivi Korhonen, CEO of PDGE (Project Development Group Europe), who interviewed the project coordinators and analyzed the qualitative and quantitative results.

## III. PUBLISHED PAPES (max.5000 characters with spaces)

List of all published works (released and to appear) with references and links (if any).

Over the reporting period, project team published 7 papers, including 3 study guides, 2 proceedings of research and practice seminars, 2 papers published in peer-reviewed journals.

## List of published papers:

- 1. Pogonysheva I.A., Pogonyshev D.A. EU countries and European education through the eyes of students of Nizhnevartovsk State University. In: Achievements of Modern Science and Education. Vol. 1. Part 2. 2017. pp. 124-127. (In Russian). http://modernscienc-org.1gb.ru/release/2017/USNO\_2017\_2\_1\_tom.pdf
- 2. Environment and Human Health: Experience of the European Union. Proceedings of the research and practice seminar. Nizhnevarovsk: Nauka i praktika Publ., 2017. 68 p. (In Russian). ISBN 978-5-6040185-0-7. https://www.konferenc.com/2018-s https://elibrary.ru/item.asp?id=32345336
- 3. Studying the interaction of environment and human health using the experience of the European Union. Proceedings of the research and practice seminar. Nizhnevartovsk: Nauka i praktika Publ., 2018. 92 p. (In Russian). ISBN 978-5-9907782-9-0. http://nvsu.ru/ru/otd\_international/1966/Sbornik\_materialov\_seminara\_22.11.18.pdf
- 4. Pogonysheva I.A., Pogonyshev D.A. Current problems of interaction between the environment and human health in the EU countries. Sources review. In: Gigiena i sanitariya [Hygiene and Sanitation], 2019 (5). (In Russian) (to appear).

# The module coordination team has developed and published various study guides and materials:

2. Handbook of teaching materials:

Pogonysheva I. A., Pogonyshev D. A., Yakubova L.A. (2017). Environment-human-social policy (experience of the European Union). Nizhnevartovsk: Nauka i praktika Publ., 62 p. DOI:10.5281/zenodo.1045286. https://elibrary.ru/download/elibrary\_30520848\_64160897.pdf

http://nvsu.ru/newsfiles/2017/3133/Okruzhayushchaya%20sreda-chelovek-

sotsialnaya%20politika%20(opit%20stran%20Evropeyskogo%20Soyuza)%20.pdf

The handbook contains educational and methodical materials developed by teachers of Nizhnevartovsk State University as part of supported Jean Monnet Modules.

3. Recommendations for the protection of public health in modern environmental conditions based on data WHO Regional Office for Europe, uploaded at the project website and Erasmus + portal of NVSU.

http://nvsu.ru/ru/otd\_international/1966/EHkspertnye\_rekomendacii\_ZHM.pdf

## IV. TEAM INVOLVED IN THE PROJECT (max.5000 characters with spaces)

The list must include all persons involved (event organizers, assistants, master and graduate students working on the project subject, etc.) and their area of responsibility.

## Нужно посмотреть, как написано в заявке!

**Denis Pogonyshev** – Academic coordinator, Candidate of Biological Sciences, Associate Professor

Irina Pogonysheva – Coordinator, Candidate of Biological Sciences, Associate Professor

## Members of NVSU teaching stuff involved in module-related research activities:

Olga Skorobogatova, Candidate of Biological Sciences, Associate Professor *Tatiana Storchak*, Candidate of Biological Sciences, Associate Professor *Elvira Yumagulova*, Candidate of Biological Sciences, Associate Professor *Vera Kuznetsova*, Candidate of Geographical Sciences, Senior Lecturer

### Postgraduate students involved in module-related research activities:

*Inna Lunyak*, expert, Department of Nature Management and Ecology, City Administration of Nizhnevartovsk.

Maria Semochkina, postgraduate student, Department for Ecology

Модуль Жан Монне "Изучение взаимосвязи окружающей среды и здоровья человека с использованием опыта Европейского союза" (Jean Monnet Module "Interaction of environment and human health: Experience of the European Union"), № 574826-EPP-1-2016-1-RU-EPPJMO-MODULE

Координаторы: И.А. Погонышева, Д.А. Погонышев

Aleksey Arishev, engineer, Nizhnevartovsk Territorial Forestry Division, Forestry and Specially Protected Natural Areas Agency, Department of Subsoil Use and Natural Resources of Khanty-Mansiysk Autonomous Area-Yugra

Ivan Didenko, Head of the Department of Ecology at OOO SibGeoProekt, Research Center.

## Master students conducting module-related research:

Natalya Kurtukova, master student majoring in Biology.

Victoria Postnikova, master student majoring in Biology Ecology.

Vladislava Egorova, master student majoring in Biology Biology.

Zukhra Ashurova, master student majoring in Biology Ecology.

Irina Musorina, master student majoring in Biology Biology.

Nadezhda Didenko, master student majoring in Biology Ecology.

## Students conducting module-related research:

Yekaterina Gontazhevskaya Nikolaevna, student majoring in Ecology and Environmental Management.

Regina Izguzhina Ravilievna, student majoring in Ecology and Environmental Management.

Maria Tkacheva Dmitrievna, student majoring in Ecology and Environmental Management.

## Members of professional community involved in module implementation:

The following members of local professional community attended research and practice seminars in 2017 and 2018:

- 1. O. Fedorova-Koval, chief specialist, AO Samotlorneftegas, Department for Environmental Protection, Nizhnevartovsk.
- 2. L.Z Fedorenko, chief specialist, PAO Varieganneftegas, Department for Environmental Program Management, Nizhnevartovsk.
- 3. S.A. Michinyanu, specialist, Unified Dispatch Service (EDS) of Nizhnevartovsk region.
- 4. E.D. Kazarinova, fire safety, labor protection and environmental services engineer, OOO Sibnefteservis, Nizhnevartovsk.
- 5. R.N Chiglintseva, chief specialist, AO SIBNIPIRP "Sibirskiy nauchno-issledovatelskiy i proektniy institute ratsionalnogo prirodopolzovaniya" (Siberian Research and Design Institute for Environmental Management), Department for Environmental Impact Assessment and Environmental Monitoring, Nizhnevartovsk.
- 6. E.N. Zaitseva, medical officer, Nizhnevartovsk Children's Clinic # 3, Nizhnevartovsk.
- 7. A.V. Savchenko, medical officer, Nizhnevartovsk City Polyclinic, Nizhnevartovsk.
- 8. A.V. Safonova, teacher, Secondary School # 1, Izluchinsk.
- 9. G.V. Ignatenko, teacher, Secondary School # 11, Nizhnevartovsk.
- 10. I.V. Biktasheva, teacher, Secondary School # 13, Nizhnevartovsk.
- 11. N.O. Baykin, teacher, Secondary School # 11, Nizhnevartovsk.
- 12. E.A. Podporina, teacher, Center for Children's Creativity, Nizhnevartovsk.
- 13. S.V. Dremina, teacher, Center for Children's Creativity, Nizhnevartovsk.
- 14. N.G. Kamshu, teacher, Center for Children's Creativity, Nizhnevartovsk.
- 15. S.V. Danila, teacher, Secondary School # 21, Nizhnevartovsk.

#### V. STATISTICS

• • Number of participants (course, seminars, conferences).

Title of the event	Number of participants		
	Number of		
	attending students:	43 students	
Teaching	2016		
	2017	43 students	
	2018	40 students	
	Total – 126 students		

Awareness-raising seminar, 2016 Γ	69 participants		
Research and practice seminar on "Environment and Human Health: Experience of the European Union" (2017)	60 participants, 9 reports		
Research and practice seminars on "Environment and Human Health: Experience of the European Union" (2018)	60 participants, 7 reports		
Competition of student research projects on "Environment and Human Health" within the Russian Student Research and Practice Conference Session "Environment and Human	2017 51 direct session participants	The list of competitors included 60 research projects by students of 25 universities, 3 colleges and 7 high schools of Russia and Kazakhstan	
Health"	2018 40 direct session participants	The list of competitors included 33 projects by students of 10 Russian universities, 2 colleges and 6 high schools	
	2019 41 direct session participants	The list of competitors included 31 research projects by students of 5 universities, 3 colleges and 7 high schools of Russia and Kazakhstan	
Open (public) lecture on "Health 2020: Basic Principles of the European Policy and Strategy for the 21st century"	44 participants		
Competition of bachelor and master student reports on "European studies of the environmental impact on human health" (2018)	35 reports, with 3 best bachelor student reports and 3 best master student reports		
Final International Research and Practice Conference "Intercultural Dialogue and Collaboration of the European Union and Russia:	6 reports made in person  2 EU experts  15 reports to appear in book of proceedings		
Implementation of Jean Monnet Projects at Nizhnevartovsk State University". Panel Session "Interaction of			
environment and human health: Experience of the European Union" (2019)	6 participating universities		