

APPROVED

Principal of LLC "Nafta College"
Chairman of the Organizing
Committee

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REFERENCE DOCUMENT
Organizational and Methodological Guidelines

Petrocup World Student Olympics (PWSO)
Oil & Gas Field Development Management and Planning

Kazan, 2024

1. General Provisions

1.1. This Reference Document on Organizational and Methodological guidelines (hereinafter referred to as the "Regulations") for the **Petrocup World Student Olympics (PWSO)** on Oil & Gas Field Development Management/Design (hereinafter referred to as the "Olympics") has been developed to implement and integrate innovative educational technologies, testing systems, and knowledge certification methods into the academic processes of Russian petroleum higher education institutions. It specifically targets senior students majoring in "Petroleum Engineering" for competencies in geology, field development planning and management.

1.2. Given the constant evolution of educational requirements, the matter of organizational and methodological guidelines has become increasingly relevant.

1.3. Organizational and methodological guidelines encompasses diverse methodological work aimed at achieving set objectives. It implies continuous (planned) activities designed to prevent difficulties in educational processes and/or facilitate the adoption of new methods and technologies for implementing academic programs and processes.

1.4. Organizational and methodological guidelines for Olympics participants is provided by the Olympics Organizer only upon receipt of an official request from a participating higher education institution.

Such support helps address institution-specific challenges related to academic self-realization that may not be inherent to the current educational period. Assistance is therefore contingent upon the institution's explicit request.

1.5. The objectives of methodological guidelines for the Olympics include:

- Mastering educational content through efficient methods;
- Enhancing students' general didactic and scientific-methodological preparedness;
- Facilitating knowledge and experience exchange among students;
- Identifying implementation challenges and risks in existing educational standards while developing preventive measures.

1.6. The Olympics Regulations and Rules have been developed and approved by the General Director of Nafta College LLC - the Olympics Organizer.

1.7. The relevance of conducting the Olympics stems from the requirements for training highly qualified specialists for the modern labor market of the country's oil and gas industry, as well as the implementation in the Russian Federation of several regulatory documents aimed at developing professional industry-specific higher education:

- "Concept of Long-Term Social and Economic Development of the Russian Federation until 2030";
- "Strategy for Developing the System of Training Skilled Personnel and Forming Applied Qualifications in the Russian Federation until 2030";
- State Program of the Russian Federation "Development of Education" until 2025

(approved by Decree of the Government of the Russian Federation No. 1642 dated December 26, 2017);

- "Strategy for Social and Economic Development of the Republic of Tatarstan until 2030" (adopted by the State Council of the Republic of Tatarstan on June 10, 2015).

1.8. Organizational and methodological guidelines is implemented through the sequential execution of the following steps:

- problem diagnosis;
- search for solution methods;
- discussion of solution options and selection of the optimal path;
- provision of assistance during the implementation phase of the solution plan.

2. Standards and Technologies Used in the Olympics.

2.1. The Olympics is based on the application of training and certification standards of the PetroCup simulator for oil and gas field development management.

2.2. Advantages and innovations of the PetroCup simulator:

2.2.1. The PetroCup simulator provides intensive interactive training, knowledge assessment of students, and development of team decision-making skills for future specialists in oil and gas field development.

2.2.2. Training on the simulator allows consolidation of professional knowledge acquired by students enrolled in programs related to geology, development, and operation of oil and gas fields, while also elevating their competency level for executing future production tasks.

2.2.3. The simulator's key advantage over traditional teaching methods (lectures and seminars) is interactive learning under realistic field operating conditions.

2.2.4. The key advantages of the PetroCup simulator include:

The interactive learning tests and refines both teamwork skills as well as individual knowledge of team members.

- Acquisition of new competencies through solving various geological and technological complications generated by the simulator.
- All materials used by teams are realistic, being based on actual field models generated in specialized PolyPlan software.
- Training sessions run in automated online mode with objective, AI-based assessment free from human bias.
- Nafta College LLC moderators possess extensive experience in modeling complex development scenarios and creating advanced learning procedures.
- The learning process concludes with comprehensive field analysis, revealing all complications and problems, comparing team decisions with moderator scenarios, and examining methodology development.
- PetroCup training sessions are supported by remote high-performance multi-core

workstations processing large input datasets to generate realistic development simulations.

- Skills and knowledge gained through simulator training enhance students' effectiveness in their core university curriculum.

3. Theoretical and Practical Significance of the Olympics

3.1. The Federal State Educational Standard (FSES), particularly FSES for TOP-50 vocational education, requires students to possess practical competencies essential for professional work. The methodological framework of the Petrocup World Student Olympics fosters creative abilities in strict compliance with FSES TOP-50 requirements.

4. Purpose of the Olympics

4.1. The Olympics aims to create educational conditions that develop students' creative initiatives and prepare them for practical work in the oil and gas industry in Russia and abroad.

5. Objectives of the Olympics

5.1. The main objectives of the Olympics regarding organizational and methodological guidelines for participants include:

- Conducting diagnostics of students' creative abilities (level and quality of specialized education received).
- Organizing monitoring of developed general and professional competencies in the discipline "Petroleum Engineering".
- Implementing assessment of students' creative abilities and initiatives, evaluating their likelihood of manifestation during Olympics events and assignments.

6. Format of the Olympics

6.1. The intra-university level Olympics in "Petroleum Engineering" is designed for both classroom and online formats. It incorporates various types of assignments: technical, technological, engineering, and engineering-creative tasks.

6.2. The Olympics is conducted annually, once per year.

6.3. The Olympics Organizing Committee determines the event format.

7. Expected Outcomes

7.1. The integration of traditional university education and assessment with innovative training and testing technologies based on PetroCup simulator standards during the Olympics fosters engineering-creative initiatives among students, facilitating successful completion of academic programs and obtaining higher education diplomas.

8. Forms of Organizational-Methodological guidelines for Olympics Participants

8.1. Provision of methodological guidelines through consultations, seminars, masterclasses, along with informational materials and educational resources.

8.2. Establishing organizational (operation of information centers) and methodological (consultation) conditions for participation of faculty, graduate students and students in various events: courses, conferences, methodological associations, round tables, workshops, practical seminars, etc.

8.3. Providing methodological guidelines (tutoring) for faculty, graduate students and students engaged in research activities.

8.4. Information support for participation of faculty, graduate students and students in various industry events (conferences, master classes, professional skills competitions) to present their experience.

8.5. Offering individual and group online training, organizing distance learning, practical training courses, trainings, certification sessions, master classes, conferences, forums.

9. Conditions for Providing Organizational-Methodological guidelines

9.1. For effective implementation of organizational-methodological guidelines for Olympics participants, the following conditions must be met:

- Involvement of faculty, graduate students and students in professional communities that foster career development.
- Support for professional activities of faculty, graduate students and students.
- Utilizing capabilities and knowledge of faculty, graduate students and students for Olympics project development, while creating conditions for unlocking and enhancing their professional potential.
- Improving management mechanisms aimed at motivating professional growth of faculty, graduate students and students.

10. Objectives of Methodological Work Within the Olympics

10.1. The main objectives of methodological work within the Olympics framework are:

- Providing methodological conditions for transition of industry-specific higher education institutions to new innovative educational standards.
- Creating prerequisites for implementation of next-generation FSES (Federal State Educational Standards) in higher education institutions.
- Ensuring professional training and retraining of higher education faculty to facilitate adoption and continued use of new innovative forms and standards in specialist training processes.
- Implementing PetroCup simulator standards into specialist training systems of higher education institutions.
- Studying and improving educational-methodological norms and aligning them with requirements of new innovative educational standards in industry-specific higher education.

10.2. The Olympics aims to create conditions for transitioning industry-specific higher education to next-generation learning standards, enhancing motivational readiness of faculty,

graduate students and undergraduates, while developing their professional competencies.

11. Supporting Higher Education Institutions in Educational-Methodological Work

11.1. The Olympics organizers assist faculty members of higher education institutions in adapting educational content to new standards through the following measures:

- Selection and development of subject-specific curricula;
- Attendance of lectures compliant with new educational standards;
- Organization of open classes, lectures, seminars and masterclasses;
- Conducting webinars;
- Preparation of self-education reports for educators' professional development;
- Provision of visual aids and video materials aligned with contemporary requirements.

12. Key Areas of Organizational-Methodological guidelines for Olympics Participants

12.1. Establishment of an Information-Library Center/archive containing video materials, lectures, webinars, presentations, etc.

13. Information-Methodological guidelines :

- Maintaining and developing the information framework of the Olympics's official website and participants' websites.
- Facilitating and supporting networking among Olympics participants.
- Creating an information database on key development areas of industry-specific education.
- Promoting participants' achievements and disseminating information about their results.
- Supporting Olympics participants in organizing professional skills competitions, advanced training courses, educational seminars, masterclasses, etc.

14. Organizational-Methodological guidelines :

- Supporting self-education processes for faculty and graduate students.
- Organizing and methodologically supporting multi-level mentoring programs.
- Assisting in developing various forms of pedagogical experience study and dissemination.
- Monitoring faculty professional needs to address competency gaps.
- Organizing, participating in, and supporting professional development and retraining programs for faculty and graduate students.
- Implementing methodological certification registries for faculty to analyze qualification profiles.

15. Educational-Methodological guidelines :

- Providing consultation and practical assistance to faculty and graduate students in organizing the educational process.
- Supporting educational institutions in methodological work.

- Attending lectures and supplementary education sessions to offer advisory and practical methodological assistance in relevant fields.

16.Information Support for the Olympics

16.1.The official Olympics website <https://nafta.college/ru/petrocup/projects/student-league/> contains structured information about the event. Key sections include:

- About the Olympics: brief information about objectives, organizers and special features.
- Documents: all principal documents related to Olympics organization (regulations, rules etc.).
- Schedule: information about the current year's Olympics.
- Application and Registration.
- Olympics Leaderboard.
- Previous Olympics: details about participants, partners, programs, schedules and results of past events.
- Organizing Committee and Board of Trustees: membership lists.
- Photo and video content.

16.2.Olympics Telegram channels:

- <https://t.me/PetroCup> (Russian language)
- https://t.me/PetroCup_En (English language)

16.3.Primary information distribution channels about the Olympics include:

- Email newsletters to educational institutions.
- Publications and announcements on websites of federal/regional government regulators and Olympics partners.
- Publications in print and digital newspapers/magazines.
- Presentations at specialized scientific-methodological conferences.
- Announcements on participating universities' websites.
- Meetings with institutional leadership, faculty bodies, student and graduate communities.
- Dissemination through specialized online student communities and social networks.

17.Organizational Support for Olympics Participants by the Organizing Committee

17.1.Participants receive informational support:

- Posting announcements on the Olympics website and regional organizers' websites.
- Providing answers to questions via email and phones of regional organizers and the Organizing Committee.

17.2.Participants receive advisory support:

- Conducting masterclasses and consultations about the rules and PetroCup simulator.

- Training on PetroCup simulator functionality during instructional briefings.
- Holding monthly open demonstration sessions on the simulator.

17.3. Participants receive technological support: providing technical support for high-performance computing stations and PetroCup simulator portals.

17.4. Participants receive analytical review of their Olympics task performance results.

17.5. Participants receive assistance with accommodation in hotels and educational institution dormitories (when available through regional partners).

17.6. Participants are provided with additional complimentary refreshments during coffee breaks at competition events (for in-person participation).

17.7. The Organizing Committee does not cover transportation, accommodation, or meal expenses for participants. These costs are to be covered by higher education institutions and their partners, as well as potentially by the partners of the Olympics organizers.

17.8. Olympics publications in print and digital media:

1. <https://minobrnauki.gov.ru/press-center/news/anonsy/25479/> Ministry of Education and Science of Russia
2. <https://fni.ncfu.ru/news/10739/> NCFU portal (North-Caucasus Federal University)
3. <https://www.mgri.ru/events/mezhdunarodnaya-studencheskaya-olimpiada-petrocup-2024-vtoroy-den/> MGRU portal (Russian State Geological Prospecting University)
4. <https://www.rudn.ru/media/events/9903c424-3113-4b47-84cd-8c6fb036ed53> RUDN University portal (Peoples' Friendship University of Russia)
5. https://vk.com/wall-46131784_4234
6. <https://www.petroleumengineers.ru/node/13666>
7. <https://nvsu.ru/news/komanda-studentov-neftyaniikov-nvgu-voshla-v-desyat/> NVSU portal (Nizhnevartovsk State University)
8. <https://samgtu.ru/news/view/studenty-politexa-zanyali-trete-mesto-na-olimpiade-petrocup> Samara State Technical University portal
9. https://earth.spbu.ru/news-events/news_3092.html Institute of Earth Sciences portal
10. <https://www.kstu.ru/event.jsp?id=142753> KNRTU portal (Kazan National Research Technological University)
11. <https://inig.sfu-kras.ru/tpost/vfic3teah1-vserossiiskaya-studencheskaya-olimpiada>
12. https://gpn.spbstu.ru/news/studenty_vshtimif_prinyali_uchastie_v_olimpiade_petrocup_2022_v_kazani/
13. <https://gubkin.uz/ru/sveden/2315/studenty-filiala-prinyali-uchastie-v-mezhdunarodnoy-studencheskoy-olimpiade-petrocup-2023> Uzbekistan
14. <https://www.gstu.by/news/2024-04-17-152603> Republic of Belarus, GSTU (Gomel State Technical University)
15. <https://spb.kodeks.ru/news/read/vserossiiskaya-studencheskaya-olimpiada-petrocup/novosti-obrazovaniya>
16. <https://gkkodeks.cntd.ru/news/read/vserossiiskaya-studencheskaya-olimpiada->

petrocup/novosti-obrazovaniya

17. <https://ieport.ru/news/502863-v-studencheskoi-olimpiade-petrocup-pobedili-agni-kfu-i-samarskii-gostexuniversitet.html>
18. <https://arhnet.info/news/news-485089>
19. <https://news.myseldon.com/ru/news/index/282808067>
20. <https://obruchev.mos.ru/presscenter/news/detail/11556453.html>
21. <https://kodeks.ru/news/read/vserossitskaya-studencheskaya-olimpiada-petrocup>
22. <https://www.youtube.com/watch?v=xLanmbO2Ziw>
23. <https://арту-ВШН.рф/media/news/studenty-agni-na-mezhdunarodnoy-arene/> AGNI portal (Almetyevsk State Oil Institute)
24. https://startng.ru/news_post/vo-vserossijskoj-studencheskoj-olimpiade-petrocup-prinyali-uchastie-140-molodyh-spetsialistov-iz-14-vuzov-strany/ StartOilGas" portal
25. <https://arhangelsk.bezformata.com/listnews/primut-uchastie-v-olimpiade-petrocup/104516281/>
26. <https://media.innopolis.university/news/petrocup-2022/?q=Итоги+Лиги+Северной+Евразии&how=т> Innopolis University portal
27. <https://ok.ru/video/2749675341062>
28. https://uz.tgstat.com/ru/channel/@gubkin_uz/2036 Uzbekistan.
29. <https://dzen.ru/a/YmJXcGiv1SwEuQEY>
30. <https://laweba.net/mezhdunarodnaya-studencheskaya-olimpiada-2022-liga-severnoy-evrazii-pryamoy-efir-den-1>
31. <https://4k-video.ru/en/id-video/1ag9be74cig/studencheskaya-olimpiada-petrocup>
32. <https://yrtu.pф/news/47940> USTU portal (Ukhta State Technical University)
33. <https://cntdtambov.ru/news/read/vserossiyskaya-studencheskaya-olimpiada-petrocup/novosti-obrazovaniya>
34. <https://malinovskiy-as.ru/students/events>
35. <https://geoenergy.engineering/events/petrocup-world-student-olympics-pwso/>
36. <https://rustube.cc/video/dVcEOXPL4omT6ks9vJwQsQ/>
37. <https://videogameplay.ru/ru/video/1ae9be74cie/studencheskaya-olimpiada-petrocup>
38. <http://inthepress.ru/press/p450285.html>
39. https://ru.telegram-store.com/catalog/channels/gubkin_uz/1639
41. <https://syktyvkar-city.ru/news/sport/studenty-ugtu-uspeshno-vystupili-na-olimpiade-petrocup.htm>
42. <https://salda.ws/video.php?id=1ag9be74cig>
43. <https://udsu.ru/news/show/championat-PetroCuP-2019-v-g-almetievsk>
44. <http://atrex.ru/press/p504042.html>
45. <https://spmi.ru/novosti/komanda-studentov-gornogo-universiteta-primet-uchastie-v-rosiyskoy-lige-vsemirnoy> Saint Petersburg Mining University portal
46. <https://sunsiberia.utm.ru/news/studencheskaya-zhizn/1048145/>
47. <http://teorng.ru/index.php?id=178>
48. <https://news.myseldon.com/ru/news/index/248183924>
49. https://oil-industry.net/Journal/archive_detail.php?ID=11567&art=232816
50. <https://www.dvfu.ru/science/grants/vserossiyskaya-studencheskaya-olimpiada-petrocup>

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51. <https://samara.bezformata.com/listnews/viigrala-ocherednoy-turnir-petrocup/114595896/>
52. https://thewikihow.com/video_VQxQQi69vRo
53. <https://www.gstu.by/news/2023-04-28-000000>
54. <https://msf.gstu.by/news/2024-04-28-000000-0>
55. <http://teorng.ru/index.php?id=178>
56. <https://nvsu.ru/news/komanda-studentov-neftyantikov-nvgu-voshla-v-desyat/>

17.9. The following permanent organizational, methodological, and supervisory bodies have been established to ensure operational and organizational support for the Olympics:

- Organizing Committee of the Olympics;
- Methodological Commission of the Olympics;
- The Olympics Jury;
- Appeals Committee of the Olympics.

17.10. The composition of the Olympics bodies may change no more than once a year.

17.11. The Organizing Committee of the Olympics includes:

1. Artur Aslanyan - Chairman of the Committee, Rector of Nafta College LLC
2. Rushaniya Farakhova - Committee Member, General Director of Nafta College LLC
3. Nikolai Andrianov - Committee Member, Business Development Manager of Nafta College LLC
4. Valeria Spiridonova - Committee Member, Event Organization Manager of Nafta College LLC
5. Rodion Guss - Committee Member, Expert of Nafta College LLC
6. Vladimir Krichevsky - Committee Member, Expert of Nafta College LLC

17.12. The Methodological Commission of the Olympics includes:

1. Artur Aslanyan - Chairman of the Commission, Rector of Nafta College LLC
2. Georgy Vasiliev - Commission Member, General Director of Polykod LLC (official partner of Nafta College LLC)
3. Rushaniya Farakhova - Commission Member, General Director of Nafta College LLC
4. Vladimir Krichevsky - Commission Member, Expert of Nafta College LLC
5. Danila Gulyaev - Commission Member, Expert of Nafta College LLC
6. Rodion Guss - Commission Member, Expert of Nafta College LLC
7. Nikolai Andrianov - Committee Member, Business Development Manager of Nafta College LLC

17.13. Olympics Jury Composition:

1. Artur Aslanyan - Chairman of the Jury, Rector of Nafta College LLC
2. Vladimir Krichevsky - Jury Member, Expert of Nafta College LLC

3. Danila Gulyaev - Jury Member, Expert of Nafta College LLC
4. Rushaniya Farakhova - Jury Member, General Director of Nafta College LLC
5. Yuri Panov - Jury Member, Rector of Sergo Ordzhonikidze Russian State Geological Prospecting University
6. Alexander Kotelnikov - Jury Member, Director of the Oil and Gas Department of the Engineering Academy at Patrice Lumumba Peoples' Friendship University of Russia
7. Mars Khasanov - Jury Member, Science Director of Gazprom Neft Group of Companies
8. Veronika Efremova - Jury Member, Rector of Tyumen Industrial University
9. Igor Shpurov - Jury Member, General Director of the State Commission on Mineral Reserves
10. Alexey Konev - Jury Member, Deputy General Director of the Russian Energy Agency of the Ministry of Energy of the Russian Federation
11. Artur Putyato - Jury Member, Rector of Pavel Sukhoi Gomel State Technical University (Republic of Belarus)
12. Vladimir Kalinnikov - Jury Member, Expert of Nafta College LLC

17.14. The Appeals Committee of the Olympics consists of:

1. Dr. Artur Aslanyan - Committee Chairman, Principal, Nafta College LLC
2. Rushaniya Farakhova - Committee Member, General Director, Nafta College LLC
3. Rodion Guss - Committee Member, Expert, Nafta College LLC
4. Nikolai Andrianov - Committee Member, Business Development Manager, Nafta College LLC
5. VladimirVKrichevsky - Committee Member, Expert, Nafta College LLC
6. Danila Gulyaev - Committee Member, Expert, Nafta College LLC

18. Schedule

№	Regional League Name	Stage	Period of the event	Format	Location
1	Northern Eurasia League	1	April	Mixed	Moscow
2	Middle East League	1	October	On-line	
3	Southeast Asia League	1	October	On-line	
4	Africa League	1	November	On-line	
5	Final Match	2	December	On-line	

19. Funding sources for the Olympics.

The following sources finance the regional qualifying stages and international Final of the Olympics:

1. Funds from the Olympics organizer - Nafta College LLC.
2. Funds from participating educational institutions (covering transportation, accommodation, and meals for student teams).
3. Support from educational institutions - provision of venues and organizational support (equipment, volunteers, coffee breaks, technical assistance, prizes, and gifts).
4. Support from oil and gas company partners of the Olympics (prizes, gifts, delegation of representatives).

20. Official feedback from higher education institutions on participation in the Petrocup World Student Olympics.

1. Link to the feedback portal of Nafta College LLC:
<https://nafta.college/ru/petrocup/lib/feedback/>
2. Link to the Cloud Drive: <https://arax.team/kZTIf>