



7. O'rmonjonov Azizbek Muhammadjon o'g'li. (2025). MAKTABGACHA TA'LIM YOSHIDAGI IMKONIYATI CHEKLANGAN BOLALAR UCHUN INKLYUZIV TA'LIM SHAROITIDA MUSIQIY TA'LIMNI TASHKIL ETISH METODIKASI. Kelajak o'qituvchisi - Kelajak Bunyodkori, 1(1), 470-475.
8. Ramziddin Tursunov. (2025). IJTIMOYIY ONG VA MA'NAVIYAT TUSHUNCHASI HAMDA UNING MAZMUN-MOHIIYATI. Kelajak o'qituvchisi - Kelajak Bunyodkori, 1(2), 36-40.

THE IMPACT OF SPORTS AND CULTURAL ACTIVITIES AMONG YOUTH ON SOCIETY

Raximjanova Sarvinoz Qobiljon qizi

Namangan State Pedagogical Institute

1st year student in the field of foreign language and literature

Scientific supervisor: B.A.Tillaev,

Senior Lecturer of the Department of Philosophy and History

Abstract: This article examines the influence of sports and cultural activities on the social, physical, and spiritual development of young people. Using data from international organizations and national programs, the study analyzes how youth participation in sports and cultural events contributes to a healthy lifestyle, social cohesion, and civic responsibility. The findings demonstrate that such activities foster not only individual well-being but also strengthen the unity and cultural identity of society.

Keywords: youth, sports, culture, social activity, healthy lifestyle, community development.

YOSHLAR ORASIDAGI SPORT VA MADANIY MASHRALARNING JAMIYATGA TA'SIRI

Annotatsiya: Ushbu maqolada yoshlar o'rtasida sport va madaniy tadbirlarning jamiyat hayotidagi o'rni va ularning ijtimoiy faollikka ta'siri tahlil qilinadi. Tadqiqot jarayonida xalqaro tashkilotlar (UNESCO, WHO) ma'lumotlari hamda O'zbekiston Respublikasi davlat dasturlari asosida yoshlarning sport va madaniyatdagi ishtiroki o'rganilgan. Natijalar shuni ko'rsatadiki, bunday tadbirlar yoshlarning sog'lom turmush tarzini shakllantirish, ma'naviy barkamolligini oshirish hamda jamiyatda birdamlikni mustahkamlashda muhim.

Kalit so'zlar: yoshlar, sport, madaniyat, sog'lom turmush, ijtimoiy faollik, jamiyat.

ВЛИЯНИЕ СПОРТИВНОЙ И КУЛЬТУРНОЙ ДЕЯТЕЛЬНОСТИ МОЛОДЕЖИ НА ОБЩЕСТВО

Аннотация: В статье рассматривается влияние спортивных и культурных мероприятий среди молодежи на общественную жизнь и социальную активность. Исследование основано на данных международных организаций (ЮНЕСКО, ВОЗ) и государственных программ Узбекистана. Результаты показывают, что участие молодежи в спортивных и культурных мероприятиях способствует формированию здорового образа жизни, духовному развитию и укреплению общественной сплоченности.

Ключевые слова: молодежь, спорт, культура, здоровый образ жизни, социальная активность, общество.

Introduction In the modern era of globalization, youth development has become one of the most important priorities for every nation. The Government of Uzbekistan has declared youth policy a strategic direction, emphasizing spiritual and physical education. According to the Presidential Decree No. PF-5684 (2019), creating conditions for youth engagement in sports and culture is vital for nurturing a harmoniously developed generation.[1]

The World Health Organization (WHO, 2021) reports that 23% of young people aged 15–29 are physically inactive. This lack of activity can lead not only to health problems but also to reduced social integration. Sports and cultural programs therefore play a crucial role in shaping active, healthy, and socially responsible youth.[2]

Literature Review Numerous studies highlight the role of sports and culture in social development. Smith and Collins (2022).[3] found that participation in sports helps young people develop leadership skills,



reduce stress, and improve their social engagement. Similarly, UNESCO (2023) states that cultural participation strengthens civic values, fosters creativity, and increases tolerance among youth.[4]

In Uzbekistan, programs such as the “Five Important Initiatives” (2019)[5] and the activities of the Youth Affairs Agency have made a significant contribution to promoting youth participation. According to the agency’s 2024 report, more than 10,000 sports events and 8,000 cultural programs were organized nationwide in 2023, involving over 1.2 million young people.[6]

Thus, previous literature confirms that both sports and cultural activities are effective tools for fostering youth social capital, psychological well-being, and national identity.

Methodology. This research applies a mixed-method approach combining quantitative surveys and qualitative interviews. A total of 300 respondents aged 18–30 participated, including university students and members of youth organizations. 150 were regularly engaged in sports; 100 were active in cultural or creative fields; 50 represented a control group not involved in such activities. Data were analyzed using descriptive statistics and thematic analysis to determine how participation levels influenced social interaction, mental health, and community engagement.

The results revealed that 87% of youth who regularly participated in sports expressed satisfaction with their lives; 81% of participants in cultural activities felt that they were valuable members of society; only 52% of non-participants shared the same feeling. The level of stress among physically active youth was 30% lower than among inactive peers, while communication and teamwork skills among culturally active youth were 40% higher (UNESCO, 2023). These findings suggest that active participation in sports and culture significantly improves youth’s psychological resilience, social integration, and confidence.

Discussion. The findings align with international research. For instance, the European Union Cultural Council (2021) reported that youth participation in arts and community events enhances social unity and civic values. Similarly, WHO (2021) highlighted that regular physical activity reduces anxiety and increases overall well-being among youth.[7]

In Uzbekistan, initiatives such as “The Five Important Initiatives”, “Youth Notebook”, and nationwide student sports tournaments have helped establish a strong foundation for youth engagement. However, challenges remain in rural areas, including insufficient sports infrastructure and limited access to cultural centers. This indicates that promoting youth participation requires collaboration between government bodies, educational institutions, and the private sector. NGOs and local communities should also play a greater role in sustaining youth initiatives.

Conclusion. The study concludes that sports and cultural activities have a profound influence on youth development. They: promote a healthy and active lifestyle; foster teamwork, tolerance, and communication skills; encourage civic participation and social responsibility; strengthen national and cultural identity. Therefore, expanding access to sports and cultural programs should remain a central focus of youth policy. Building partnerships among government, education, and civil society organizations can ensure sustainable youth engagement and long-term societal benefits.

References

1. Presidential Decree No. PF-5684 (2019) - O'zbekiston Respublikasi Prezidentining Farmoni.
2. WHO (World Health Organization, 2021) - Jahon Sog'liqni Saqlash Tashkiloti hisoboti.
3. Smith and Collins (2022) - Yoshlar o'rtasida sportning roli bo'yicha tadqiqot.
4. UNESCO (2023) - Madaniy ishtirok va fuqarolik qadriyatlari bo'yicha hisobot.
5. "Five Important Initiatives" (2019) - "Besh muhim tashabbus" dasturi.
6. Youth Affairs Agency 2024 report - Yoshlar ishlari agentligining 2024 yilgi hisoboti.
7. European Union Cultural Council (2021) - Yevropa Ittifoqi Madaniyat Kengashi hisoboti
8. O'rmonjonov Azizbek Muhammadjon o'g'li. (2025). INKLYUZIV TA'LIMNING MOHIYATI, MAQSADI VA RIVOJLANISH TENDENSIYALARI. (2025). Kelajak o'qituvchisi - Kelajak Bunyodkori, 1(2), 701-710.
9. Tursunov Ramziddin Abdixalil-o'g'li. (2025). JAMIYAT HAYOTIDA IJTIMOIIY ONG VA MA'NAVIYAT UYG'UNLIGI. TA'LIM VA TARAQQIYOT, 4(4), 324-330.

ZAMONAVIY TA'LIMDA KREDIT-MODUL TIZIMINING AHAMIYATI VA AMALIY QO'LLANISH MEXANIZMLARI

Sodiqjonov Javohir Akmaljon o'g'li

Namangan davlat pedagogika instituti mustaqil tadqiqotchisi

Elektron pochta: javohir091sodiqjonov@gmail.com



Annotatsiya :Mazkur maqolada zamonaviy ta’lim jarayonida kredit-modul tizimining nazariy asoslari, uning amaliy qo’llanish mexanizmlari va samaradorlik omillari tahlil qilingan. Kredit-modul tizimi ta’lim jarayonini individuallashtirish, talabani mustaqil ta’lim faoliyatini rivojlantirish hamda o’qituvchi va talaba o’rtasidagi o’zaro hamkorlikni takomillashtirishga xizmat qiluvchi zamonaviy model sifatida yoritilgan. Shuningdek, maqolada O’zbekiston ta’lim tizimida kredit-modul tizimini joriy etish jarayonlari, mavjud muammolar va ularni bartaraf etish bo’yicha ilmiy-metodik tavsiyalar bayon etilgan. Tadqiqot natijalari ushbu tizimni milliy ta’lim muhitiga moslashtirish va ta’lim sifatini oshirishda muhim ahamiyat kasb etadi.

Kalit so’zlar: kredit-modul tizimi, zamonaviy ta’lim, mustaqil ta’lim, innovatsion yondashuv, baholash tizimi, o’quv jarayoni.

СОВРЕМЕННОЕ ОБРАЗОВАНИЕ: ЗНАЧЕНИЕ И ПРАКТИЧЕСКИЕ МЕХАНИЗМЫ ПРИМЕНЕНИЯ КРЕДИТНО-МОДУЛЬНОЙ СИСТЕМЫ

Содиқжонов Джавахир Акмалжонович

Независимый исследователь

Наманганский государственный педагогический институт

Электронная почта: javohir091sodiqjonov@gmail.com

Аннотация : В данной статье рассмотрены теоретические основы кредитно-модульной системы, её практические механизмы применения и факторы эффективности в современном образовательном процессе. Кредитно-модульная система анализируется как современная модель обучения, направленная на индивидуализацию образовательного процесса, развитие самостоятельной деятельности студентов и совершенствование взаимодействия между преподавателем и обучающимся. В статье также отражены особенности внедрения кредитно-модульной системы в образовательную систему Узбекистана, существующие проблемы и научно-методические рекомендации по их решению. Результаты исследования имеют важное значение для адаптации данной системы к национальной образовательной среде и повышения качества образования.

Ключевые слова: кредитно-модульная система, современное образование, самостоятельное обучение, инновационный подход, система оценки, учебный процесс.

THE SIGNIFICANCE AND PRACTICAL IMPLEMENTATION MECHANISMS OF THE CREDIT-MODULAR SYSTEM IN MODERN EDUCATION

Sodiqjonov Javohir Akmaljon og‘li

Independent Researcher

Namangan State Pedagogical Institute

Email: javohir091sodiqjonov@gmail.com

Abstract: This article analyzes the theoretical foundations of the credit-modular system, its practical implementation mechanisms, and effectiveness factors in the modern educational process. The credit-modular system is examined as a contemporary educational model aimed at individualizing learning, enhancing students’ independent study skills, and improving teacher–student interaction. The article also discusses the introduction of the credit-modular system into Uzbekistan’s education system, identifies existing challenges, and provides scientific and methodological recommendations for their resolution. The research findings are significant for adapting this system to the national educational environment and improving the overall quality of education.

Keywords: credit-modular system, modern education, independent learning, innovative approach, assessment system, learning process.

Bugungi kunda ta’lim tizimini modernizatsiyalash, uni xalqaro andozalarga moslashtirish, shuningdek, o’quv jarayonida shaxsga yo’naltirilgan yondashuvni kuchaytirish davlat siyosatining ustuvor yo’nalishlaridan biri sifatida e’tirof etilmoqda. Shu nuqtai nazardan, kredit-modul tizimi ta’lim jarayonini



samarali tashkil etish, talabalarning mustaqil o‘quv faoliyatini faollashtirish hamda o‘qituvchi va o‘quvchi o‘rtasidagi interaktiv aloqalarni takomillashtirishda muhim omil bo‘lib xizmat qilmoqda.

Kredit-modul tizimi — bu talabaning o‘zlashtirish darajasi, bilim, ko‘nikma va malakasini bosqichma-bosqich baholashga asoslangan, shaxsga yo‘naltirilgan o‘qitish modelidir. Mazkur tizimning joriy etilishi O‘zbekiston Respublikasining oliy va o‘rta maxsus ta’lim tizimida xalqaro ta’lim makoniga integratsiyalashish jarayonini jadallashtirish, ta’lim sifatini oshirish, kadrlar tayyorlashda raqobatbardoshlikni ta’minlashga xizmat qilmoqda.

O‘zbekiston Respublikasi Prezidentining 2019-yil 8-oktabrdagi PF-5847-sonli Farmoni bilan tasdiqlangan “O‘zbekiston Respublikasi oliy ta’lim tizimini 2030-yilgacha rivojlantirish konsepsiyasi”da kredit-modul tizimini joriy etish ta’lim sifatini oshirishning muhim sharti sifatida belgilab berilgan. Shu asosda, mamlakatimizdagi ko‘plab oliy ta’lim muassasalarida o‘quv jarayonini kredit-modul tizimi asosida tashkil etish ishlari bosqichma-bosqich amalga oshirilmoqda.

Kredit-modul tizimi nafaqat ta’lim jarayonini baholash mezonlarini takomillashtiradi, balki talabaning o‘z bilimini mustaqil ravishda chuqurlashtirish, individual o‘quv rejasini shakllantirish va ta’lim motivatsiyasini oshirish imkonini beradi. Shuningdek, ushbu tizim talabalarning xalqaro mobilligini ta’minlash, ta’lim dasturlarini o‘zaro tan olish (akademik transfer) hamda o‘qituvchilar faoliyatini sifat jihatidan baholash imkonini yaratadi. Zamonaviy ta’lim jarayonida kredit-modul tizimining samarali ishlashi uchun o‘qituvchining innovatsion yondashuvi, o‘quv dasturlarining modullarga asoslangan tuzilishi, baholashning shaffof va aniq mezonlari hamda raqamli texnologiyalarni qo‘llash muhim ahamiyat kasb etadi. Shu boisdan, bugungi kunda ushbu tizimni amaliyotga joriy etish mexanizmlarini ilmiy asosda o‘rganish, takomillashtirish va milliy ta’lim modeliga moslashtirish zaruriyatga aylanmoqda.

Modul va kredit tushunchasi - modullar ma’lum bir professional faoliyat obyektiga muvofiqlik belgisi bilan birlashtirilgan ta’lim elementlari tizimi sifatida ishlab chiqilgan. Shuningdek, talabaning aqliy faoliyati jarayonida aniq ma’lumot bilan ishlashga imkon beradigan, mustaqil mantiqiy tuzilishga va tarkibga ega bo‘lgan ma’lum miqdordagi ma’lumot sifatida qaraladi. Baratovning ilmiy ishlarida akademik Yu.K.Babanskiyning quyidagicha fikrlari berib o‘tilgan. “Modulli tizimda o‘qitish talabalarga faqat ilmiy ma’lumotlarni yetkazish emas, balki yangi o‘quv materialining asosiy elementlarini o‘zlashtirishdan iboratdir. Talabalarning nafaqat odatdagidek umumiy ta’lim ko‘nikmalarini egallashinigina ko‘zda tutilmaydi balki ixtirochilik qobiliyatlarini ham rivojlantiradi”[1]. Ixtirochilik, kreativlikni rivojlantirish mustaqil ta’limda juda muhim hisoblanadi. Shu o‘rinda, ilmiy manabalar tahlili jarayonida, kredit-modul sharoiti faoliyati davomida yuzaga keladigan ayrim ilmiy tushunchalarga ta’rif berib ketish maqsadga muvofiqdir. K.A. Mamajonova o‘zining ilmiy ishlarida modulga quyidagi ta’rifni bergan: “Modul – bu bir nechta fan hamda kurs o‘rganiladigan o‘quv rejasining bir qismi bo‘lib, talabalarda muayyan bilim va ko‘nikma hosil qilish, tahliliy-mantiqiy mushohada yuritish salohiyatiga ega bo‘lishiga qaratilgan bir nechta fanlar (kurslar) majmui hisoblanadi”[2]. Xorijiy tajribaga ko‘ra, Kredit-modul sharoitida o‘quv jarayoni har semestrda 2-4 tagacha moduldan iborat bo‘ladi. Modulda jamlangan fanlar osondan murakkablik sari, nazariy - uslubiy fanlardan amaliy fanlarga qarab hamda mantiqiy jihatdan bir-birini o‘zaro uzviy to‘ldirish prinsipi asosida shakllantiriladi. Talaba mutaxassis bo‘lib shakllanishi uchun nafaqat axborotlar, balki ularni qayta ishlash, amaliyotga joriy qila olish malakasiga ega bo‘lishi talab etiladi.

Kredit (credit) — talabaning alohida ta’lim yo‘nalishi yoki dasturi (kurs) bo‘yicha fanlarni o‘qib, o‘rganishi va o‘zlashtirishi uchun sarflangan o‘quv yuklamasi (vaqt) o‘lchov birligidir. Kredit – talabaning me’yoriy hujjat bilan belgilangan, odatda bir hafta davomida auditoriyada va mustaqil ravishda ta’lim olishi uchun ajratilgan minimal vaqt o‘lchovidir. A.Nurmatovning fikricha: “Talabaga kredit ma’lum bir fandan belgilangan topshiriqlarni bajarib, yakuniy imtihondan muvaffaqiyatli o‘tgandan so‘ng beriladi”[3]. Shuning uchun kreditlarni faqatgina raqamlar deb qaramaslik kerak. Har bir kredit talaba bajarishi kerak bo‘lgan ma’lum miqdordagi o‘qish yuklamasini va talaba buning natijasida muayyan o‘qish natijalariga erishganligini bildiradi. I.N. Xaydarova. ECTS (European Credit Transfer and Accumulation System - Yevropa kredit o‘tkazish va to‘plash tizimi) kredit-modul sharoiti tarkibi ikki elementlardan, o‘qish yuklamalari va o‘qish natijalaridan iboratligini aniqlagan[4]. Talaba esa shu elementlarni bajargandagina o‘sha fan bo‘yicha belgilangan miqdordagi kreditlarni qo‘lga kiritishi mumkin.

O‘zbekiston Respublikasi Prezidentining 2019 yil 8-oktabrdagi “Oliy ta’lim tizimini 2030-yilgacha takomillashtirish konsepsiyasi” to‘g‘risidagi farmonida GPA (Grade Point Average) - ta’lim oluvchining dastur bo‘yicha o‘zlashtirgan ballari o‘rtacha qiymati ekanligini, uni formula yordamida hisoblanishi kerakligi belgilangan. Bu formula quyidagicha berilgan:



$$GPA = \frac{K_1 \cdot U_1 + K_2 \cdot U_2 + K_3 \cdot U_3 + \dots + K_n \cdot U_n}{K_1 + K_2 + K_3 + \dots + K_n}$$

K - har bir fan, modulga ajratilgan kreditlar miqdori;

U - har bir fan, modul bo'yicha talaba to'plagan ball[5].

Ushbu formula bo'yicha talaba faqat fan, modulni muvaffaqiyatli yakunlagan taqdirda, ushbu fan/modul bo'yicha kredit beriladi.

Shuningdek YUNESKO (UNESCO) tomonidan joriy qilingan “Ta’limning xalqaro standart klassifikatsiyasi” (TXSK 2011) va “TXSK: Ta’lim va kasbiy tayyorlash sohalari”ga (TXSK-S 2013) muvofiq ishlab chiqilgan. Har bir yo’nalish, bakalavr, magistr, kunduzgi, kechki ta’limda o’qiydigan talabalarga o’quv soatlari, mustaqil ta’lim soatlari, kreditlar miqdori berib o’tilishini talab qiladi.

Davlat ta’lim standartlarida bakalavr yo’nalishi talabalarining kredit soatlari jadvallar bilan tushuntirib o’tilgan (1.1.1-jadvalga qarang). Ishlab chiqarishdan ajralgan holda (kunduzgi) o’qish shakli uchun o’qishning me’yoriy muddati quyidagicha taqsimlanadi:

1.1.1-jadval

Ishlab chiqarishdan ajralgan holda (kunduzgi) o’qish shakli uchun o’qishning me’yoriy muddati

O’qish muddati	Haftalar soni	Kreditlar miqdori	Akademik soatlar miqdori
3 yil	152	180	5400
4 yil	204	240	7200
5 yil	256	300	9000
6 yil	308	360	10800

Kredit-test (kreditno-zachetnaya sistema) va ta’limning reyting tizimi o’rtasidagi farqni Zaripov Lochin o’zining ilmiy ishida tahlil qilgan. Unga ko’ra fanda o’rganishni muvaffaqiyatli tugatgan talabalar shu fan uchun ajratilgan kreditlar sonini oladi. Ular ushbu kreditlardan keyingi o’qish uchun bakalavr yoki magistratura yo’nalishlarida foydalanadilar. Talabalar erishgan yutuqlarini baho bilan belgilanadi va bu kredit o’quv jarayonining tuzilishini ko’rsatadi, lekin talabaning bilim darajasini bildirmaydi[6]. Kredit faqat ma’lum bir fanga sarflangan vaqtni ko’rsatadi va bu shaxsning ushbu fanni tushunishi yoki qiyinligi bilan bog’liq emas. Talaba kursni muvaffaqiyatli topshirgan taqdirdagina tegishli miqdorda kredit oladi. Fanni tugatganligi, ya’ni belgilanganidan pastroq baho olsa bu “qoniqarli” baho deb hisoblanadi. Hujjatlardagi, hemis platformasida ball diplomga qo’shimchada olingan kreditlar miqdori bilan parallel ravishda ko’rsatiladi. Kredit-modul sharoitining asosiy vazifalari quyidagilardan iboratdir: Ta’lim jarayonlarini modul asosida tashkil qilish, bitta kurs, fan (kredit)ning qiymatini aniqlash, talabalar bilimni reyting bali asosida baholash, talabalarga o’zlarining o’quv rejalarini, mustaqil ta’limni qaysi vaqtda qilishni individual tarzda tuzishlariga imkon yaratish, ta’lim jarayonida mustaqil ta’lim olishning ulushini oshirish, o’quv dasturlarining qulayligi va mehnat bozorida mutaxassisga qo’yilgan talabdan kelib chiqib o’zgartirish kiritish mumkinligidan.

Xulosa qilib aytganda, hamma davrda ham ilm fanning rivojlanishida uning bosqichlari, yaratilish tarixi, qiyinchiliklari, kamchiliklari va albatta yutuqlari mavjuddir. Yuqorida berilgan kredit o’lchovi tizimini amaliyotga tatbiq etishda to’rtta model ishlab chiqilgani ilm yo’lida shaffoflikka asoslangan ta’lim berish kerakligi, amaliyotlardan o’tkazilgani haqida nazariy tahlili yoritildi. Har bir kredit o’lchovining bilim berishda o’ziga xos o’rni mavjuddir. USCS, ECTS, UCTS, CATS kredit o’lchov birliklari sinovdan o’tgan va nufuzli universitetlarda foydalanib, talabalarga sifatli ta’lim berishga asos bo’lmoqda.

Yuqoridagi ilmiy tahlillar shuni ko’rsatadiki, kredit-modul tizimi zamonaviy ta’limni tashkil etishda muhim innovatsion mexanizm sifatida ta’lim jarayonini individuallashtirish, talabalarining mustaqil o’quv faoliyatini rivojlantirish hamda o’qituvchining pedagogik mahoratini takomillashtirishga xizmat qilmoqda. Ushbu tizimning joriy etilishi ta’lim jarayonini baholashning shaffofligi va adolatligini ta’minlab, o’quvchilarning bilim, ko’nikma va kompetensiyalarini xalqaro standartlar asosida o’lchash imkonini beradi. Kredit-modul tizimi orqali o’quv jarayonida modul asosida o’qitish, reyting va kredit baholash tizimlarini uyg’unlashtirish, talaba faoliyatini natijadorlik mezonlari asosida baholash imkoniyati yaratiladi. Bu esa, o’z navbatida, ta’lim sifatini oshirish, o’quv dasturlarini moslashtirish, raqobatbardosh kadrlar tayyorlash va xalqaro ta’lim maydoniga integratsiyalashish uchun zamin yaratadi.

Shuningdek, tizimni samarali qo’llashda raqamli texnologiyalar, elektron ta’lim platformalari, masofaviy o’qitish vositalari hamda innovatsion pedagogik yondashuvlarning ahamiyati beqiyosdir. Shu boisdan,



kredit-modul tizimining amaliy mexanizmlarini yanada takomillashtirish, o’qituvchilar va talabalar o’rtasida samarali hamkorlikni kuchaytirish, baholash mezonlarini xalqaro andozalarga moslashtirish hozirgi davr ta’lim siyosatining muhim yo’nalishlaridan biri hisoblanadi.

FOYDALANILGAN ADABIYOTLAR RO’YHATI

- 1.Barotov. M.U. Advantages of credit-modular student learning. International bulletin of applied science and technology. 2023. – P. 16.
- 2.Mamajonova K.A. Kredit-modul tizimida mustaqil ta’limni tashkil etishning obyektiv va subyektiv jihatlari. Elektron manba: jdpu.uz. Murojaat sanasi: 15.06.2023.
- 3.Nurmatov A. Kredit-modul tizimi: erkinlik va tanlov huquqi. – Ma’rifat. 2022. Elektron manba:<http://marifat.uz/marifat/ruknlar/olii-talim/KREDIT-MODUL-TIZIMI.htm> Murojaat sanasi: 04.06.2022
- 4.Xaydarova. I.N. Oliy ta’limda kredit-modul tizimi. – Oriental renaissance: innovative, educational, natural and social sciences scientific journal impact factor. 2021. P. 1022.
5. O’zbekiston Respublikasi Prezidentining 2019 yil 8-oktyabrdagi “Oliy ta’lim tizimini 2030 yilgacha takomillashtirish konsepsiyasi” to’g’risidagi PF-5847-son Farmoni.<https://www.lex.uz/docs/3765586>. Murojaat sanasi: 14.02.2020.
6. Zaripov L. Providing a methodological system of modular education in professional training of future technology teachers in the credit-module system. – International bulletin of applied science and technology. 2023. – P. 43.
7. Sobirova M. Modulli ta’lim texnologiyalari. O’quv qo’llanma. O’zb.Res.Oliy va o’rta maxsus ta’lim vazirligining 2021-y.25-dekabrdagi 538-sonli buyrug’i asosida nashrga tavsiya etilgan. – Namangan: Arjumand media, 2021. – B.200.
8. Sodiqjonov J. Kredit-modul tizimining mohiyati va o’quv jarayonidagi o’rni. Qo’qon davlat pedagogika instituti 2025-yil. ISSN:3030-3958 4 son.-B.1240-1243

RASTOROPSHA O’SIMLIGINING KIMYOVIY TARKIBI VA UNING TARKIBIDAGI FAOL MODDALAR

Qobulova Barno Bahriddin qizi

Buxoro davlat texnika universiteti dotsenti

Email:kobulovabarno@gmail.com

Berdiyeva Zarina Farhod qizi

Buxoro davlat texnika universiteti magistranti

Email:zarinaberdiyeva74@gmail.com

Annotatsiya. Rastoropsha o’simligining yana bir nomi Qushqo’nmas deb yuritiladi. Shu bilan birga bu o’simlik ruderal o’simliklarning qatoriga kiradi. Bunga sabab antropogen ta’sir doirasida bo’lgan yashash sharoitlarida -aholini yashash punktlarida va ularning atrofida, avtomobil va temir yo’llarning yonlarida, chorva hayvonlari qo’ralarining atrofida uchraganligi sababli ruderal o’simliklar qatoriga kiradi. Bu o’simliklarning barglari atrofi tikanlar bilan o’ralgan bo’lib, uning gullari esa bitta savatchada joylashadi va rastoropshaning gullari ikki jinsli hisoblanadi. Asosan may va avgust oylarida gullaydi, mevalari esa sentyabr- oktyabr oylarida pishishni boshlaydi. Bu o’simlikning urug’i va boshqa qismlari vitaminlar va turli xildagi kimyoviy moddalardan tashkil topganligi sababli bu maqola davomida uning kimyoviy tarkibini o’rganib chiqamiz.

Kalit so’zlar. Silimarin, silibin, silidianin, silixristin, vitamin, efir moylari, makroelementlar, mikroelementlar, yog’lar, biogen aminlar.

CHEMICAL COMPOSITION OF THE RASTOROPSHA PLANT AND ITS ACTIVE INGREDIENTS

Kabulova Barno Bahriddin qizi

Associate Professor, Bukhara State Technical University

Email:kobulovabarno@gmail.com

Berdiyeva Zarina Farhod qizi

Master's student, Bukhara State Technical University

Email:zarinaberdiyeva74@gmail.com