Subject name	Qualification internship (ECTS 34)
Subject/module code	MA26834
Semester(s) in which the subject is taught.	6 th and 8 th semesters
Responsible teacher Education language	Parsokhonov Abdulkobi Gafurovich, (PhD), associate professor; Nurullaev Orzikul Ubayevich, Senior teacher; Majidov Xomidxon Orifxon ugli, Assistant, Suyarov Anvar Olimjon ugli, Assistant; Boliev Alisher Mardievich, Assistant; Jumanov Abbos Nabijonovich, Assistant; Tulakov Jakhongir Turaqul ugli, Assistant; Sorimsokov Uchkun Soatboy ugli, Assistant; Yuldoshova Mukhayyo Olimjon kizi, Assistant. Uzbek
Connection to the curriculum	Compulsory
Training hours (this including independent education)	Total hours-1020 Semester 6 8 Total 120 900
ECTS	34
Prerequisites/relationship with subjects	Introduction to the Specialty, Thermal engineering and hydropower, Theoretical Electrical Engineering, Electric drive, Electric machines, Electrical and Electronic Devices, Special electric machines, Automated electric drive, Mathematical Modeling and Design of Electric Machines, physics, Automatic Control Theory, Operation of electrical machines and transformers, Power supply, Electrical networks and systems, Power management and optimization. Relay protection, Mathematical problems of energy, Alternative energy sources in the power supply system.
Objective of the subject/learning outcomes	The purpose of the Qualification internship is to help 3 rd and 4 th year students of the educational programs Power Engineering and Electrical Engineering consolidate the theoretical knowledge gained in compulsory and elective subjects during the academic year, as well as learn how to choose a topic for their graduation thesis, study the problems of the enterprise, and provide practical assistance in solving the problems of a production enterprise in the next academic year through coursework and course projects, and graduation thesis.
Qualifying practice (topics)	 I. Main practical part. Topic 1. Familiarization with the history and internal regulations of the production enterprise, as well as technical safety instructions. Topic 2. Efficiency of the enterprise's production electrical machines and electrical devices. Topic 3. Getting to know the production departments of the enterprise. Topic 4. Familiarization with the production capacity of the enterprise and the contribution of manufactured products to the development of the Republic. Topic 5. Studying the impact of a company on the environment Topic 6. Collect complete information about energy-efficient electric machines and processes to be introduced into production.

- **Topic 7**. Collect information about the economic efficiency of the enterprise.
- **Topic 8.** Collect information about the technologically advanced energy-efficient electric machines and electric vehicles and power supply and energy auditor.
- **Topic 9.** Determining the performance of transformers, electrical networks, electrical machines, PLC, SCADA, and energy efficiency indicators.
- **Topic 10**. Information on and extracts from State regulatory documents used in production.
- **Topic 11**. Methods for studying the physical, mechanical properties and chemical composition of raw materials used in production and finished products, and obtaining information about energy-efficient electrical machines and power supply.

II. Instructions and recommendations for organizing training for professional practice.

- The enterprise introduces students to the rules of internal order and technical safety;
- Students must fully comply with the internal order of the enterprise during the period of professional production practice;
- Students collect information about the enterprise during professional production practice and study the problems of the enterprise;
- The student can work as an assistant in any of the workshops of the enterprise;
- After the establishment of workplace safety and general instructions, students are allowed to independently familiarize themselves with the rules of the workplace;

III. Recommended topics for professional practice work:

- 1. Introduction.
- 2. History of the enterprise.
- 3. Energy efficiency of the enterprise's production electric machines.
- 4. Get acquainted with the general plan of the enterprise and the plans of its departments.
- 5. Get acquainted with the production capacity of the enterprise and the contribution of manufactured products to the development of the Republic.
- 6. Study the impact of the enterprise on the environment and ecology.
- 7. Collect complete information about the raw materials brought into production.
- 8. Collect information about the economic efficiency of the enterprise (for the economic part).
- 9. Collect information about the introduced technological energy-saving electric machines and electrical processes.
- 10. Determining the performance of transformers, electrical networks, electrical machines, PLC, SCADA, and energy efficiency indicators.
- 11. Obtain information about the production and auxiliary electrical processes of the enterprise.

1. Correctly perform the tasks specified in the internship Exam format 2. Obey the internal labor regime and procedures of the production enterprises where the internship is conducted. 3. Study and strictly adhere to the rules of labor protection, technical safety and industrial sanitation. 4. Participate in the internship in accordance with the instructions given by the department. 5. Keep a diary, keep it in accordance with the rules for the implementation of the assigned tasks. 6. Prepare a written report on the completed tasks to the internship supervisor and submit a test (report defense) on the internship. Learning outcomes and exam In the qualification (working) practice, students are required to fully master practical concepts, correctly organize the results requirements of the analysis, independently think about the processes and phenomena being studied, and complete tasks in the form of evaluating the practice, as well as tasks for the final assessment.. The student must complete the final qualification internship within the specified time frame, completing independent theoretical and practical assignments according to the relevant qualification production internship program. A student who has not completed the qualification practice tasks, as well as who has scored 60 points on these tasks and the type of control, is included in the final control type, and if the score is below 59.9 points, he is considered to have failed the final control. A student who has not passed the final exam or has not scored 60 points on this type of exam is considered to have failed the final control. **Main literature:** Recommended readings 1.Elektr tarmoqlari va tizimlari: Oʻquv qoʻllanma/ A.M.Safarov, T.Sh. G'oyibov, A.X. Sulliyev. O'zbekiston Respublakasi Oliy va oʻrta maxsus ta'lim vazirligi. Toshkent. Tafakkur boʻstoni. 2013.-224 b. N.B.Pirmatov. O.E.Zayniyeva, N.A.Qurbonov, B.S.Bobonazarov. Elektr mashinalari. O'quv qo'llanma – T.: «Voris - nashriyot», 2020, 237 b. 3. Gayibov T.Sh. Elektr tarmoqlari va tizimlari. Oʻquv qo'llanma. – T.: «Voris-nashriyot». 2010. 3. Alimxodjayev K.T., Pirmatov N.B., Ziyoxodjayev T.I. Elektr mashinalari. - T.: 4. Berdiyev U.T., Pirmatov N.B. Elektromexanika. - T., Shams-Asa. 2014. -392 b 5. Majidov S. Elektr mashinalari va elektr yuritma. - T.: Oʻqituvchi, 2002. -358 b. "Fan va texnologiya", 2018. -344 6. Korxonaning pasporti. 7. Korxonaning Nizomlari. 8. Texnologik jarayonlarda ishlatiladigan uskunalarning texnik pasporti. 9. O'zbekiston Respublikasi Prezidentining 2017-yil 27iyuldagi "Oliy ma'lumotli mutaxassislar tayyorlash sifatini oshirishda iqtisodiyot sohalari va tarmoqlarining ishtirokini yanada kengaytirish chora-tadbirlar toʻgʻrisida"gi PQ-3151-sonli

Qarori, Oʻzbekiston Respublikasi Oliy va oʻrta maxsus ta'lim vazirligining 2017-yil 1-avgustdagi 527-sonli buyrugʻi hamda

vazirlikning 2022-yil 13-iyundagi "Oliy ta'lim muassasalari talabalarining malaka amaliyotini oʻtash tartibini takomillashtirish toʻgʻrisida"gi 202-sonli buyrugʻi bilan tasdiqlangan Nizom talablari.

10.Korxona tomonidan ishlab chiqarishda foydalaniladigan Davlat meyoriy hujjatlari (GOST lar).

Internet resources:

- 11. <u>www.lex.uz</u> National database of information on legal documents of the Republic of Uzbekistan.
- 12.<u>www.ziyonet.uz</u> National educational materials search site.
- 13.<u>www.gov.uz</u> Government portal of the Republic of Uzbekistan.
- 14.<u>www.google.com</u> International educational materials search site.
- 15.<u>www.energystrategy.ru</u>—"Energy Policy and Strategy" information portal
- 16.<u>www.twirpx.com</u> international educational materials search site.