

İndirilme Tarihi

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SER-429 - INDUSTRIAL CERAMIC APPLICATIONS I - Güzel Sanatlar Fakültesi - Seramik Cam Bölümü

General Info

Objectives of the Course

The objective of this course is to introduce students to the fundamental principles of industrial ceramic production processes and to teach production techniques through practical applications. Students will learn industrial material selection, mold preparation, mass production methods, and quality control processes, establishing a solid foundation for the following course, "Industrial Ceramic Applications II."

Course Contents

The course begins with the properties of industrial ceramic materials and selection criteria. Mold making, casting, pressing, and other basic mass production techniques are covered. Issues encountered during production and quality control methods are also discussed. Practical workshops reinforce theoretical knowledge.

Recommended or Required Reading

Plaster mask, metal scraping tools, chisel, plaster rasp, metal scraper, angled scraper, plaster mixing bowl, dipper/scoop, soft soap, red clay (as casting slip), technical drawing paper and pencils, permanent colored plaster pencil.

Planned Learning Activities and Teaching Methods

The course is conducted through theoretical lectures and practical workshops. Supported by group work, individual projects, and field trips. Active student participation and hands-on experience are encouraged.

Recommended Optional Programme Components

Students are recommended to follow current literature and technological developments related to industrial ceramic production processes. Practice outside the workshop is encouraged.

Instructor's Assistants

The course is conducted by expert faculty members. Teaching assistants and technicians support workshop and laboratory activities.

Presentation Of Course

The course is delivered face-to-face with 3 hours of theory and 3 hours of practice weekly, totaling 6 hours.

Dersi Veren Öğretim Elemanları

Dr. Öğr. Üyesi Serkan Tok

Program Outcomes

1. Can define the basic properties of industrial ceramic materials.
2. Can apply mold preparation and basic production techniques.
3. Can explain mass production processes and quality control methods.
4. Can analyze common problems encountered in industrial ceramic production.
5. Can design and produce industrial ceramic products through practical workshops.

Weekly Contents

Order	PreparationInfo	Laboratory	TeachingMethods	Theoretical	Pra
1	Research on types of plaster and their applications https://dergipark.org.tr/tr/download/article-file/3491048 (s.115-124) https://dergipark.org.tr/tr/download/article-file/1578743 (s.60-62) https://earsiv.anadolu.edu.tr/xmlui/bitstream/handle/11421/26687/681751.pdf?sequence=1&isAllowed=y (s.22-24) https://acikbilim.yok.gov.tr/bitstream/handle/20.500.12812/611996/yokAcikBilim_10181365.pdf?sequence=-1 (s.9-24)		Lecture, demonstration and workshop practice	Introduction to Plaster and Its Use in Industrial Ceramics	Plasma casting trials
2	Research on types of plaster and their applications https://dergipark.org.tr/tr/download/article-file/3491048 (s.115-124) https://dergipark.org.tr/tr/download/article-file/1578743 (s.60-62) https://earsiv.anadolu.edu.tr/xmlui/bitstream/handle/11421/26687/681751.pdf?sequence=1&isAllowed=y (s.22-24) https://acikbilim.yok.gov.tr/bitstream/handle/20.500.12812/611996/yokAcikBilim_10181365.pdf?sequence=-1 (s.9-24)		Lecture, demonstration and workshop practice	Introduction to Plaster and Its Use in Industrial Ceramics	Plasma casting trials
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8	Research on types of plaster and their applications https://dergipark.org.tr/tr/download/article-file/3491048 (s.115-124) https://dergipark.org.tr/tr/download/article-file/1578743 (s.60-62) https://earsiv.anadolu.edu.tr/xmlui/bitstream/handle/11421/26687/681751.pdf?sequence=1&isAllowed=y (s.22-24) https://acikbilim.yok.gov.tr/bitstream/handle/20.500.12812/611996/yokAcikBilim_10181365.pdf?sequence=-1 (s.9-24) Review and practice of previous weeks' content		Individual practical exam	Evaluation of knowledge and techniques from the first 7 weeks	Pra mo exa pla
9	Research on types of plaster and their applications https://dergipark.org.tr/tr/download/article-file/3491048 (s.115-124) https://dergipark.org.tr/tr/download/article-file/1578743 (s.60-62) https://earsiv.anadolu.edu.tr/xmlui/bitstream/handle/11421/26687/681751.pdf?sequence=1&isAllowed=y (s.22-24) https://acikbilim.yok.gov.tr/bitstream/handle/20.500.12812/611996/yokAcikBilim_10181365.pdf?sequence=-1 (s.9-24) Mold planning and technical drawing preparation		Demonstration, workshop, individual guidance	Types of plaster molds, single and multi-part mold techniques	Prc of t thri pla mo
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Workload

Activities	Number	PLEASE SELECT TWO DISTINCT LANGUAGES
Vize	2	6,00
Final	2	6,00
Uygulama / Pratik	4	6,00
Ders Öncesi Bireysel Çalışma	5	6,00
Ders Sonrası Bireysel Çalışma	5	6,00
Uygulama / Pratik Sonrası Bireysel Çalışma	5	6,00

Assesments

Activities	Weight (%)
Final	60,00
Vize	40,00

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12	P.O. 13	P.O. 14	P.O. 15
L.O. 1	5	4	4	2	3	3	2	2	3	2	4	4	3	3	2
L.O. 2	5	4	5	3	4	3	3	2	3	2	5	4	3	4	3
L.O. 3	4	4	4	3	4	3	3	2	3	2	4	4	3	4	3
L.O. 4	4	5	4	3	5	3	3	3	3	3	4	5	3	4	3
L.O. 5	5	4	5	3	5	3	3	3	3	3	5	5	3	5	3

Table :

- P.O. 1 :** Have knowledge in the fields of art, design and ceramics, as well as the skills to put this knowledge in practice
- P.O. 2 :** Have research, experimentation, analysis, evaluation and interpretation ability
- P.O. 3 :** Design and create a product / a work / a process that will meet the needs or propose a solution to a problem, taking into account the restrictions arising in the field of ceramics
- P.O. 4 :** Have the ability to working groups or individually relating their field knowledge with other disciplines
- P.O. 5 :** Determine, describe and propose solutions to problems in the art and design of ceramics
- P.O. 6 :** Have professional and ethical responsibility in intellectual and artistic works
- P.O. 7 :** Communicate effectively and express themselves verbosely
- P.O. 8 :** Understand the impact of art and design solutions at a global and societal level
- P.O. 9 :** Have a full understanding of the necessity of life long learning and are equipped with the skills and an awareness of sustaining it
- P.O. 10 :** Develop a self-awareness of contemporary issues
- P.O. 11 :** Use the necessary techniques and innovations required for art and design applications
- P.O. 12 :** Sustain a strong research orientation, and show determination and willingness to adapt technological developments in ceramics
- P.O. 13 :** Share an awareness of art and design in the community with an understanding and adaption of social and cultural responsibilities
- P.O. 14 :** Show professional self-confidence with a conceptual knowledge in creativity processes
- P.O. 15 :** Follow international developments, realize art and design as a social responsibility
- L.O. 1 :** Can define the basic properties of industrial ceramic materials.
- L.O. 2 :** Can apply mold preparation and basic production techniques.
- L.O. 3 :** Can explain mass production processes and quality control methods.
- L.O. 4 :** Can analyze common problems encountered in industrial ceramic production.
- L.O. 5 :** Can design and produce industrial ceramic products through practical workshops.