

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 in industrial ceramics
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 in industrial ceramics
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6	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) Sketching and reviewing drawing examples		Drawing exercises and one-on-one guidance	Technical drawing rules, scale and proportion, transition from drawing to mold	Preparation of plaster bas-relief drawing
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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	Practical examination of plaster techniques
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	Preparation of plaster mold techniques
10	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	Preparation of plaster mold techniques
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13	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) Slip formulation and production planning		Hands-on workshop	Industrial casting process, slip preparation and mold reuse	Casting of plaster dry process, slip preparation and mold reuse

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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 :** Sanat, tasarım ve seramik alanına yönelik donanımına sahip olma ve edindiği bilgileri uygulama becerisi
- P.O. 2 :** Araştırma, deneyimleme, analiz, değerlendirme ve yorumlama becerisi
- P.O. 3 :** Seramik alanının gerektirdiği kısıtlamaları göz önünde bulundurarak, ortaya konan sorun ve gereksinimleri karşılayacak bir ürün/yapıtı ya da süreci tasarlama ve yaratma becerisi
- P.O. 4 :** Kendi alanını diğer disiplinlerle ilişkilendirerek bireysel ve grup içinde çalışma becerisi
- P.O. 5 :** Sanat ve tasarım sorunlarını belirleme, tanımlama ve çözme becerisi
- P.O. 6 :** Fikir ve sanat eserleri alanlarında mesleki ve etik sorumluluk bilinci
- P.O. 7 :** Etkin iletişim kurma ve kendini ifade edebilme becerisi
- P.O. 8 :** Sanat/tasarım çözümlemelerinin, evrensel ve toplumsal boyutlarda etkilerini anlamak için gerekli genişlikte eğitim
- P.O. 9 :** Yaşam boyu öğrenmenin gerekliliği, bilinci ve bunu gerçekleştirebilme becerisi
- P.O. 10 :** Çağın sorunları hakkında kendini geliştirebilme bilinci
- P.O. 11 :** Sanat ve tasarım uygulamaları için gerekli olan teknikleri ve yenilikleri kullanma becerisi
- P.O. 12 :** Araştırma yönü kuvvetli, teknolojik gelişmeleri takip eden ve alanına adapte edebilme bilinci
- P.O. 13 :** Sanat ve tasarım bilincini toplumla paylaşarak sosyal, kültürel ve toplumsal sorumlulukları kavrama, benimseme bilinci
- P.O. 14 :** Yaratıcılık sürecinde mesleki özgüvenle birlikte kavramsal bilgi birikimi ve becerileri pekiştirme bilinci
- P.O. 15 :** Sanatı ve tasarımı toplumsal bir sorumluluk boyutunda kavrayan ve alanına yönelik uluslararası gelişmeleri takip eden bireyler yetiştirmek
- L.O. 1 :** Endüstriyel seramik malzemelerinin temel özelliklerini tanımlayabilir.
- L.O. 2 :** Kalıp hazırlama ve temel üretim tekniklerini uygulayabilir.
- L.O. 3 :** Seri üretim süreçlerini ve kalite kontrol yöntemlerini açıklayabilir.
- L.O. 4 :** Endüstriyel seramik üretiminde karşılaşılan temel problemleri analiz edebilir.
- L.O. 5 :** Uygulamalı atölye çalışmalarıyla endüstriyel seramik ürünler tasarlayabilir ve üretebilir.