



AGH

AGH UNIVERSITY OF SCIENCE
AND TECHNOLOGY

Faculty of: Materials Science and Ceramics

Field of study: Chemical Technology Study level: Second-cycle studies Form and type of study: Full-time studies

Specjalty: Technologia ceramiki i materiałów ogniotrwałych Annual: 2017/2018 Lecture language: Polish

| Code | Module name | Lectures | Auditorium classes | Laboratory classes | Project classes | Conversation seminar | Seminar classes | Practical classes | Fieldwork classes | Workshops | Others | E-learning | ECTS | E |
|---|---|----------|--------------------|--------------------|-----------------|----------------------|-----------------|-------------------|-------------------|-----------|--------|------------|------|-----|
| Semester 1 | | | | | | | | | | | | | | |
| Engineering | | | | | | | | | | | | | | |
| CTC-2-101-TC-s | Chemical reactors | 15 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Mathematics | | | | | | | | | | | | | | |
| CTC-2-104-TC-s | Metody matematyczne w technologii materiałów | 15 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Other Basic | | | | | | | | | | | | | | |
| CTC-2-102-TC-s | Chemia ciała stałego | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 4 | No |
| CTC-2-103-TC-s | Metody badań ciała stałego | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Technologia ceramiki i materiałów ogniotrwałych | | | | | | | | | | | | | | |
| The rules for selecting groups/modules: Student wybiera trzy przedmioty z grupy "Technologia ceramiki i materiałów ogniotrwałych" | | | | | | | | | | | | | 15 | |
| CTC-2-106-TC-s | Projektowanie technologii ceramicznych | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 5 | Yes |
| CTC-2-108-TC-s | Technologie surowców mineralnych i odpadów przemysłowych | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 5 | Yes |
| CTC-2-110-TC-s | Technologie formowania ceramiki | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 5 | Yes |
| CTC-2-111-TC-s | Technologia wytwarzania i stosowania materiałów ogniotrwałych | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 5 | Yes |
| Suma ECTS | | | | | | | | | | | | | 28 | |
| Semester 2 | | | | | | | | | | | | | | |
| Elective | | | | | | | | | | | | | | |
| CTC-2-201-TC-s | Technologia ceramiki i materiałów ogniotrwałych | 30 | 0 | 90 | 0 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 9 | Yes |
| CTC-2-206-TC-s | Seminarium magisterskie | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-207-TC-s | Praca magisterska | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | No |

Study programme - Chemical Technology - 2017/2018

| Code | Module name | Lectures | Auditorium classes | Laboratory classes | Project classes | Conversation seminar | Seminar classes | Practical classes | Fieldwork classes | Workshops | Others | E-learning | ECTS | E |
|---|--|----------|--------------------|--------------------|-----------------|----------------------|-----------------|-------------------|-------------------|-----------|--------|------------|------|-----|
| Other Basic | | | | | | | | | | | | | | |
| CTC-2-202-TC-s | Fizykochemia układów koloidalnych | 30 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 4 | Yes |
| CTC-2-203-TC-s | Modelowanie procesów technologicznych | 30 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | Yes |
| CTC-2-205-TC-s | Podstawy biotechnologii | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Physics | | | | | | | | | | | | | | |
| CTC-2-204-TC-s | Fizyka ciała stałego | 15 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Foreign language | | | | | | | | | | | | | | |
| The rules for selecting groups/modules: Student wybiera jeden z przedmiotów z grupy Język obcy. | | | | | | | | | | | | | 2 | |
| CTC-2-220-TC-s | Angielska terminologia techniczna | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | Yes |
| CTC-2-239-TC-s | Język angielski B2+ - obowiązkowy kurs języka specjalistycznego na studiach II stopnia dla studentów Wydziału Inżynierii Materiałowej i Ceramiki | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | Yes |
| Przedmiot obieralny z obszaru nauk humanistycznych i społecznych | | | | | | | | | | | | | | |
| The rules for selecting groups/modules: Student wybiera jeden przedmiot z bloku. | | | | | | | | | | | | | 3 | |
| CTC-2-210-TC-s | Fashion engineering | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-211-TC-s | Bioethics | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Specialized subject Sf | | | | | | | | | | | | | | |
| The rules for selecting groups/modules: Student wybiera jeden z modułów z listy. | | | | | | | | | | | | | 2 | |
| CTC-2-209-TC-s | Spektroskopia oscylacyjna ciała stałego | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-213-TC-s | Akustyczne badania materiałów | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-214-TC-s | Kierowana krystalizacja szkła i tworzywa szklanokrystaliczne | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-215-TC-s | Korozja materiałów budowlanych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-216-TC-s | Metody i narzędzia rozwiązywania problemów produkcyjnych i technologicznych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-217-TC-s | Mikroskopia Optyczna w badaniach materiałów | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-218-TC-s | Modyfikowanie barwy ceramicznych materiałów budowlanych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-219-TC-s | Nieorganiczne materiały jonowo-kowalencyjne | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-221-TC-s | Nowoczesne metody instrumentalne w kontroli procesów przemysłowych i ochronie środowiska | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-222-TC-s | Optyka i spektroskopia szkieł | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-223-TC-s | Otrzymywanie tworzyw metodą krystalizacji z fazy gazowej | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-224-TC-s | Akustyczne badania materiałów | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-225-TC-s | Kierowana krystalizacja szkła i tworzywa szklanokrystaliczne | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-226-TC-s | Korozja materiałów budowlanych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-227-TC-s | Metody i narzędzia rozwiązywania problemów produkcyjnych i technologicznych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-228-TC-s | Mikroskopia Optyczna w badaniach materiałów | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-229-TC-s | Modyfikowanie barwy ceramicznych materiałów budowlanych | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-230-TC-s | Nieorganiczne materiały jonowo-kowalencyjne | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-231-TC-s | Nowoczesne materiały i techniki w analityce | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-232-TC-s | Nowoczesne metody instrumentalne w kontroli procesów przemysłowych i ochronie środowiska | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-233-TC-s | Optyka i spektroskopia szkieł | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-234-TC-s | Otrzymywanie tworzyw metodą krystalizacji z fazy gazowej | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |

Study programme - Chemical Technology - 2017/2018

| Code | Module name | Lectures | Auditorium classes | Laboratory classes | Project classes | Conversation seminar | Seminar classes | Practical classes | Fieldwork classes | Workshops | Others | E-learning | ECTS | E |
|--|---|----------|--------------------|--------------------|-----------------|----------------------|-----------------|-------------------|-------------------|-----------|--------|------------|------|----|
| CTC-2-235-TC-s | Przemiany fazowe | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-236-TC-s | Spektroskopia oscylacyjna ciała stałego | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-238-TC-s | Przemiany fazowe | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-240-TC-s | Nowoczesne materiały i techniki w analityce | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| Suma ECTS | | | | | | | | | | | | | 32 | |
| Semester 3 | | | | | | | | | | | | | | |
| Elective | | | | | | | | | | | | | | |
| CTC-2-302-TC-s | Seminarium specjalistyczne | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| CTC-2-303-TC-s | Seminarium magisterskie | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-306-TC-s | Praca magisterska | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 20 | No |
| Other Basic | | | | | | | | | | | | | | |
| CTC-2-304-TC-s | Ochrona środowiska w technologii chemicznej | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | No |
| Przedmiot obieralny anglojęzyczny (Df) | | | | | | | | | | | | | 3 | |
| The rules for selecting groups/modules: Student wybiera jeden przedmiot z listy modułów. | | | | | | | | | | | | | | |
| CTC-2-301-TC-s | Advanced forming methods | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-305-TC-s | BioComposites | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-307-TC-s | BioSurface Engineering (Prof. Dieter Scharnweber) | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-308-TC-s | Degradation of engineering materials | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-309-TC-s | Numerical methods in materials science | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-310-TC-s | Recent developments and applications of refractories (Dr hab. Janusz Zborowski) | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-311-TC-s | Synthesis, sintering and behaviour of nanostructured materials (Prof. Kiyotaka Matsuura) | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-312-TC-s | Theory and practice of ceramics processes | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-313-TC-s | Thermoelectric materials | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-314-TC-s | Synthesis of nanosized particles and their application in nanoceramics and nanocomposite technology (Prof. Thomas Graule) | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-315-TC-s | Advanced chemical analysis | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-316-TC-s | Chemistry and technology of cementitious materials | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-317-TC-s | Materials Science in Space Technologies | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-318-TC-s | Physical Chemistry of Surfaces and Surface Analytical Techniques | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-319-TC-s | Experimental methods in solid state chemistry | 15 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-320-TC-s | Neurochemistry and Neuropharmacology | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-321-TC-s | Neurobiology of drug dependence | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-322-TC-s | Introductory Quantum Chemistry | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-323-TC-s | Wear behaviour of high-temperature ceramics in extreme environment applications | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| CTC-2-324-TC-s | Atomic Force Microscopy and its variants in advanced measurements | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 3 | No |
| Suma ECTS | | | | | | | | | | | | | 30 | |