

| COURSE INFORMATION | | | | | |
|-----------------------------|----------|----------|----------|---------|------|
| Course Title | Code | Semester | L+P Hour | Credits | ECTS |
| Qualifying Exam Preparation | CHBE 691 | | | NC | 30 |

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| Prerequisites | |
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| Language of Instruction | English |
| Course Level | Ph.D. |
| Course Type | Compulsory |
| Course Coordinator | Süheyla Uzman |
| Instructors | |
| Assistants | |
| Goals | This course is designed to prepare the Ph.D. students for the qualifying exam. |
| Content | In this course, the student carries out an independent study to prepare for the qualifying exam. At the end of the course, the student takes a written and oral qualifying exam to demonstrate that he/she has sufficient knowledge about the fundamental subjects in his/her field and that he/she is capable of conducting scientific research towards writing a Ph.D. thesis. |

| Course Learning Outcomes | Program Learning Outcomes | Teaching Methods | Assessment Methods |
|---|---------------------------|------------------|--------------------|
| Possess adequate knowledge of fundamental subjects within the field of study | 1,2 | 1 | A |
| Ability to conduct research in the area of concentration | 3,4,5 | 1 | A |
| Ability to contribute to the existing scientific knowledge in the area of concentration | 4,6,7 | 1 | A |
| Ability to communicate technical content in writing and orally | 6,8,9 | 1 | A |

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|----------------------------|---------------------------------------|
| Teaching Methods: | 1: Independent study |
| Assessment Methods: | A: Qualifying Exam (written and oral) |

| COURSE CONTENT | | |
|-----------------------|--|--|
| Week | Topics | Study Materials |
| 1-14 | Independent study in preparation for the qualifying exam | Variety of textbooks in the field of Chemical Engineering, Books and articles related to the thesis topic. |

| RECOMMENDED SOURCES | |
|-----------------------------|--|
| Textbook | |
| Additional Resources | |

| MATERIAL SHARING | |
|-------------------------|--|
| Documents | |
| Assignments | |
| Exams | |

| ASSESSMENT | | | |
|---|------------------------|---------------|-------------------|
| | IN-TERM STUDIES | NUMBER | PERCENTAGE |
| Qualifying exam (written) | | 1 | 50 |
| Qualifying exam (oral) | | 1 | 50 |
| | Total | | 100 |
| Contribution of Final Examination to Overall Grade | | | 100 |
| Contribution of In-Term Studies to Overall Grade | | | 0 |
| | Total | | 100 |

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| COURSE CATEGORY | Expertise |
|------------------------|-----------|

| COURSE'S CONTRIBUTION TO PROGRAM | | | | | | |
|----------------------------------|--|--------------|---|---|---|---|
| No | Program Learning Outcomes | Contribution | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| 1 | Understand and apply natural sciences, mathematics and engineering sciences in advanced level. | | | | | X |
| 2 | Have a wide and deep knowledge in his/her field including the latest progresses. | | | | | X |
| 3 | Reach the latest knowledge in the field and through its comprehension possess high level competence in required methods and skills for doing research. | | | | | X |
| 4 | Ability to do an extensive study which brings in novelty to science and technology, develop a new scientific method or technological product/process, or apply a know method to a new field. | | | | | X |
| 5 | Understand a genuine research process independently, design, apply and carry through; manage the process | | | | | X |
| 6 | Contribute to science and technology literature by publishing the outcomes of his/her academic studies in prestigious media. | | | | | X |
| 7 | Able to do critical analysis, synthesis and evaluation of ideas and progresses in his/her specialization. | | | | | X |
| 8 | Able to communicate and discuss at high level orally, written and visually by using a language at least at the level of European Language Portfolio C1 orally and written. | | | | | X |
| 9 | Able to communicate with persons in his/her career and widely with scientific and social ensemble orally and written. | | | | | X |
| 10 | Able to evaluate scientific, technological, social and cultural developments and transfer them to society with senses of scientific disinterest and ethical responsibility. | | | | | |

| ECTS ALLOCATED BASED ON STUDENT WORKLOAD BY THE COURSE DESCRIPTION | | | |
|--|----------|-----------------|-----------------------|
| Activities | Quantity | Duration (Hour) | Total Workload (Hour) |
| Independent study | 1 | 750 | 750 |
| Qualifying exam (written) | 1 | 4 | 6 |

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|----------------------------------|---|---|-------|
| Qualifying exam (oral) | 1 | 2 | 2 |
| Total Work Load | | | 752 |
| Total Work Load / 25(h) | | | 30.32 |
| ECTS Credit of the Course | | | 30 |