

## Course Basic Information

Close

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|-------------------------------------|--|------------|---|-------------------|---------------------|--------------------|-------------------|
| Year                                | 2023   | Term       | 2nd Semester  | Course Code       | ELEC0332-002        | Course Title       | Automatic Control |
| Credits                             | 3-3-0  | Department | College of IT Engineering School of Electronics Engineering | Course Categories | Major               | Classroom Language | English           |
| Instructor                          | 벨루볼루칼리아나차크라바르띠   | Class Time | Sat. 1A,1B,2A<br>Sat. 2B,3A,3B                              | Classroom         | IT대학1호관(공대10호관) 109 |                    |                   |
| Office& Office Hours                | Friday 3 pm - 5 pm; Email for appointment.   |            |   |                   |                     |                    |                   |
| Talent Model of department          | • 실무에 뛰어난 전공분야 전문가 • 새로운 기술적 변화에 대처할 수 있는 창의적, 융합형 전문가 • 타인과 소통하고 협업하는 리더형 전문가   |            |   |                   |                     |                    |                   |
| Educational objective of department | • 학습한 전자공학 지식을 적재적소에 적용할 수 있는 실무형 전문가 양성 • 빠르게 변화하고 발전하는 ICT 기술에 대처하고 새로운 방향을 제시할 수 있는 창의적, 융합형 전문가 양성 • 타인과 소통하고 협업하여 주어진 문제를 효율적으로 해결할 수 있는 리더형 전문가 양성 |            |   |                   |                     |                    |                   |

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| General Information | Core Competencies | Evaluation Methods | Support Available for Disabled Students | Course Content and Schedule | Course Evaluation |
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## General Information

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|--|---|--|-------------|----------|---------------------|-------------------|--------|----------------|
| * Course Outline<br>(1093/18000byte)           | Analysis of linear control systems using transfer functions. Controller design and applications for linear systems. Applications will be taught in Matlab.<br><br>This course is an introduction to analysis and design of feedback control systems, including classical control theory in the time and frequency domain. Modeling of physical, biological and information systems using linear and nonlinear differential equations. Stability and performance of interconnected systems, including use of block diagrams, Bode plots, Nyquist criterion.<br><small>Homework and assignments are focused on analytical techniques for design and synthesis of control systems.</small> |  |             |          |                     |                   |        |                |
| * Prerequisites<br>(64/1000byte)               | Good background in Engineering mathematics and Electric Circuits  |  |             |          |                     |                   |        |                |
| Recommended Subsequent Course<br>(39/1000byte) | Circuit Theory, Engineering Mathematics   |  |             |          |                     |                   |        |                |
| Textbook & Other References                    | Search Input  | No   | * Book Name | * Author | * Publishing Office | * Publishing Year | * ISBN | * Book Section |
|  |   | 조회된 데이터가 없습니다.   |             |          |                     |                   |        |                |
|  | Directly Input  | (269/18000byte)<br>1) "Modern Control Systems" by R. C. Dorf, R. H. Bishop, Prentice Hall, 12th Edition, 2011<br>2) Automatic Control Systems <sup>a</sup> Golnaraghi & Kuo, Prentice Hall, USA, 9e, 2010.<br><small>References:</small> |             |          |                     |                   |        |                |
| Notice to Students<br>(228/18000byte)          | This course is a basic level course and requires good attendance for understanding. If you are absent for more than 2 lectures consecutively it will effect your performance. Solving of exercises is compulsory for understanding  |  |             |          |                     |                   |        |                |