

Space Engineering International Course (SEIC) 2016

Master Course/ The course requirements

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|---------------------------------------------------------|-----------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Subjects | | Departments | Course A (Space Engineering International Course) |
| | | | Mechanical and Control Engineering Civil and Architectural Engineering Electrical and Electronic Engineering Materials Science Applied Science for Integrated System Engineering |
| Lectures etc. | PBL(Project Based Learning) | | 4 credits from specific SEIC subjects |
| | Workshops | | <i>Development Project-Design I · II</i> 2 credits |
| | Languages | | <i>Space Environment Testing Workshop</i> 1 credit <i>Japanese for Beginners or English III</i> 1 credit |
| | Common Subjects | | 20 credits minimum from general SEIC subjects *You must take minimum of 22 credits to cover total requirements |
| | Special Subjects | | |
| | Practical Subjects | | |
| Thesis Research for Degree / Special Laboratory Work | | | 4 credits |
| Required credits (total amount) | | | 30 credits minimum |

Doctoral Course/ The course requirements

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|-----------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Subjects | | Departments | Space Engineering International Course |
| | | | All Engineering |
| Lectures etc. | Interdisciplinary Seminar | | 2 credits |
| | Common Subjects | 4 credits minimum from SEIC subjects* | |
| | Special Subjects | *Credits previously applied to Master course are ineligible | |
| | Practical Subjects | *Student entering as a Doctoral student is required to take <i>Japanese for Beginners or English III</i> 1 credit | |
| Directed Research | Field Research Project | | 2 credits |
| | Special Studies | | |
| | Internship | Overseas type | |
| | | Company type | |
| | Project Research | I (specialty-deepening type) | |
| II ~IV(specialty-broadening type) | | 1 credit minimum | |
| Required credits (total amount) | | | 10 credits minimum |
| Foreign language | | | Optional |

Table: Space Engineering International Course (SEIC) Subjects

| Subjects | Lecturer | Credits | Master course | | | | Doctoral course | Note |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------|--------------------------|-------------|--------------------------|-------------|-----------------|------|
| | | | 1 st Semester | | 2 nd Semester | | | |
| | | | 1st quarter | 2nd quarter | 3rd quarter | 4th quarter | | |
| Introduction to Satellite Engineering | CHO Mengu | 2 | | | | ○ | | |
| Satellite Power System I | CHO Mengu IMAIZUMI Mitsuru KAWAKITA Shirou NAITOU Hitoshi KUSAWAKE Hiroaki NOZAKI Yukishige | 1 | | | ○ | | | |
| Satellite Power System II | CHO Mengu IMAIZUMI Mitsuru KAWAKITA Shirou NAITOU Hitoshi KUSAWAKE Hiroaki NOZAKI Yukishige | 1 | | | | ○ | | |
| Space Environment Testing | CHO Mengu | 2 | ○ | | | | | |
| Spacecraft Environment Interaction Engineering | CHO Mengu AKAHOSHI Yasuhiro TOYODA Kazuhiro KIMOTO Yugo | 2 | | ○ | | | | |
| Advanced Course of Aerospace Guidance and Control | YONEMOTO Koichi | 2 | ○ | | | | | |
| Semiconductor Power Devices | OMURA Ichiro | 2 | | ● | | | | |
| Spacecraft Structure and Material | OKUYAMA Keiichi | 2 | | | | ○ | | |
| Space Systems Engineering I | SHIRAKI Kuniaki | 1 | | | ○ | | | |
| Space Systems Engineering II | SHIRAKI Kuniaki | 1 | | | | ○ | | |
| Energy Conversion and Plasma Physics | TOYODA Kazuhiro | 2 | | | ○ | | | |

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|----------------------------------------------------|--------------------------------------------|-----------|-----|-----|-----|-----|---|----------------------------------------------------------------------------------------------------------------|
| Advanced Space Dynamics | HIRAKI Koju | 2 | | | ○ | | | |
| High-speed Gas Dynamics | TSUBOI Nobuyuki | 2 | | | ○ | | | |
| Advanced High Velocity Impact Engineering | AKAHOSHI Yasuhiro | 2 | | | | ○ | | |
| Space Propulsion | TACHIBANA Takeshi | 2 | | ○ | | | | |
| Advanced Mechanics of Materials | YAMAGUCHI Eiki | 2 | | | | ○ | | |
| Heat Transfer | MIYAZAKI Koji | 2 | ○ | | | | | |
| Development Project-Design I | Teachers in charge of Development Projects | 1 | (○) | | (○) | | | See Note4,PBL subject /Required for Master course students |
| Development Project-Design II | Teachers in charge of Development Projects | 1 | | (○) | | (○) | | See Note4,PBL subject /Required for Master course students |
| Development Project-Fabrication I | Teachers in charge of Development Projects | 1 | (○) | | (○) | | | See Note 4/ Please consult the teacher in charge of Development Project the time when you should take this. |
| Development Project-Fabrication II | Teachers in charge of Development Projects | 1 | | (○) | | (○) | | |
| Development Project-Operation I | Teachers in charge of Development Projects | 1 | (○) | | (○) | | | |
| Development Project-Operation II | Teachers in charge of Development Projects | 1 | | (○) | | (○) | | |
| Space Environment Testing Workshop | CHO Mengu | 1 | | ○ | | | | Required for Master course students |
| EnglishIII | RUXTON Ian | 1 | | ○ | | | | See Note 1, 3 |
| Japanese for Beginners I | ISHIKAWA Tomoko | 0.5 | | | ○ | | | See Note 2,3 |
| Japanese for Beginners II | ISHIKAWA Tomoko | 0.5 | | | | ○ | | See Note 2,3 |
| Thesis Research for Degree | Supervisors | 2 | | | ○ | | | Register in your own department |
| Engineering Special Experiment | Supervisors | 2 | | | ○ | | | Register in your own department |
| Practical experience in companies or organizations | Supervisors | Maximum 2 | | | ○ | | | Register in your own department |
| Lectures arranged by external organizations | Supervisors | Maximum 2 | | | ○ | | | |
| Interdisciplinary Seminar of Engineering I ~V | Supervisors | 1each | | | | | ○ | |
| Interdisciplinary Seminar of Engineering VI~VII | Supervisors | 1each | | | | | ○ | Working-students only |

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|-------------------------------------------------------|-------------|---|--|---|--|
| Project Research I (Specialty-deepening type) | Supervisors | 1 | | ○ | |
| Project Research II~IV (Specialty-broadening type) | Supervisors | 1 | | ○ | |
| Internship (Overseas type) | Supervisors | 2 | | ○ | |
| Internship (Company type) | Supervisors | 2 | | ○ | |
| Field Research Project | Supervisors | 2 | | ○ | |
| Special Studies | Supervisors | 2 | | ○ | |

1. 「EnglishIII」 is for Japanese students only
2. 「Japanese for beginners」 is for international students of SEIC only. Depending on the student's Japanese level, they may take 「Japanese I」 or 「Japanese II」.
3. Students must take 「EnglishIII」(for Japanese students) or 「Japanese for beginners」(for international students) during the Master course if they enter SEIC as Master's students and during the Doctoral course if they enter SEIC as Doctoral students.
4. Students cannot take 2 or 3 subjects of 「Development Project (Design・Fabrication・Operation) I, II」 during the same quarter.
5. ● class is held after 6th period (18:00~19:30).