# Master's Program Subject and Completion Requirements 2018

## Department of Multimedia Engineering

| Code | A completion requirements item name and subject name | Instructor | Unit | School hour a week 1st.Grade Spring and Summer Terms | School hour a week 1st.Grade Fall and Winter Terms | School hour a week 2nd.Grade Spring and Summer Terms | School hour a week 2nd.Grade Fall and Winter Terms | Unit multiplication method | Necessary lower limit units | Necessary lower limit units |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total | | | | | | | (1)+(2) | 30 | |
| | (1)Core Subjects | | | | | | | (1,1)+(1,2)+(1,3) | 22 | |
| | (1,1)Core Subjects(Required) | | | | | | | Σ | 4 | 4 |
| 331625 | Research on Multimedia Engineering Ia | All Staff | 2 | 6 | | | | | | |
| 331626 | Research on Multimedia Engineering Ib | All Staff | 2 | | 6 | | | | | |
| | (1,2)Core Subjects(Required Elective) | | | | | | | (1,2,1)or(1,2,2)or(1,2,3)or(1,2,4) | 4 | 4 |
| | (1,2,1)Required Elective Subjects 1 | | | | | | | Σ | 0 | |
| 331613 | Exercises on Multimedia Engineering I | All Staff | 2 | 4 | | | | | | |
| 331614 | Exercises on Multimedia Engineering II | All Staff | 2 | | 4 | | | | | |
| | (1,2,2)Required Elective Subjects 2 | | | | | | | Σ | 0 | |
| 331332 | Fundamentals of Software Development on Cloud Environment | Katsuro Inoue Shinji Kusumoto Shusuke Haruna & Other | 2 | 2 | | | | | | |
| 331333 | Exercise for Software Development on Cloud Environment | Katsuro Inoue Shinji Kusumoto Shusuke Haruna & Other | 2 | 2 | 2 | | | | | |
| | (1,2,3)Required Elective Subjects 3 | | | | | | | Σ | 0 | |
| 331527 | Exercises on Information Security I | Morito Matsuoka Yuya Tarutani Naoto Yanai (Shingo Okamura) | 2 | 2 | 2 | | | | | |
| 331528 | Exercises on Information Security II | Morito Matsuoka Yuya Tarutani Naoto Yanai (Shingo Okamura) | 2 | 2 | 2 | | | | | |
| | (1,2,4)Required Elective Subjects 4 | | | | | | | Σ | 0 | |
| 331426 | Introduction to Exercises on Information Engineering for Interactive Creation A | Taro Maeda Haruo Takemura Toru Fujiwara Hideyuki Ando Susumu Date Yuichi Ito | 4 | 4 | 4 | | | | | |
| | (1,3)Core Subjects(Elective) | | | | | | | (1,3,1)+(1,3,2) | 14 | |
| | (1,3,1)Subjects held at the university | | | | | | | Σ | 0 | |
| 331601 | Architecture for Multimedia Systems | Shinji Shimojo Susumu Date Kazuhide Kojima Yoshiyuki Kido | 2 | 2 | | | | | | |
| 331635 | Big Data Engineering | | 2 | | | | | | | |
| 331636 | Big Data Analytics | Makoto Onizuka Yuya Sasaki | 2 | 2 | | | | | | |
| 331610 | Multimedia Agent | Norihiro Hagita Takahiro Miyashita Takayuki Kanda | 2 | | 2 | | | | | |
| 331611 | Seminar on Multimedia Engineering I | All Staff | 2 | 2 | | | | | | |
| 331612 | Seminar on Multimedia Engineering II | All Staff | 2 | | 2 | | | | | |
| 331619 | Multimedia Data Engineering | Takahiro Hara Takuya Maekawa Tomoki Yoshihisa (Kaname Harumoto) | 2 | 2 | | | | | | |
| 331620 | Database Systems | | 2 | | | | | | | |
| 331621 | Information Security | | 2 | | | | | | | |
| 331622 | Content Security | Toru Fujiwara Shotaro Miwa Takeshi Yoneda Tsutomu Yoshikawa | 2 | 2 | | | | | | |
| 331637 | Robot Vision | Yasuyuki Matsushita | 2 | | 2 | | | | | |
| 331638 | Machine Vision | | 2 | | | | | | | |
| 331627 | Research on Multimedia Engineering IIa | All Staff | 2 | | | 6 | | | | |
| 331628 | Research on Multimedia Engineering IIb | All Staff | 2 | | | | 6 | | | |
| 331629 | Special Lectures on Multimedia Engineering | (Osamu Yonetani) (Osamu Shirakawa) (Yasuhiro Fujiwara) (Hideki Kashioka) (Toshiyasu Sugio) (Katsuyoshi Yamagami) (Masahiro Iwasaki) | 2 | | 2 | | | | | |
| 331639 | Studies on International Integrated Sciences | Leibnitz Kenji Ferdinand Peper Siriteanu Constantin | 2 | 2 | | | | | | |
| | (1,3,2)Subjects held outside the university | | | | | | | MAX{(1,3,2,1),(1,3,2,2)} | 0 | |
| | (1,3,2,1) | | | | | | | | 0 | |
| 331630 | Internship on Multimedia Engineering | All Staff(Except Collaborative Division) | 2 | 3 | 3 | | | | | |
| | (1,3,2,2) | | | | | | | | 0 | |
| 331633 | Collaborative Research in Multimedia Engineering | All Staff(Except Collaborative Division) | 4 | 6 | 6 | | | | | |
| | (2)Elective subject | | | | | | | (2,1)+(2,2)+(2,3) | | |

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## Department of Multimedia Engineering

| Code | A completion requirements item name and subject name | Instructor | Unit | 1st.Grade Spring and Summer Terms | 1st.Grade Fall and Winter Terms | 2nd.Grade Spring and Summer Terms | 2nd.Grade Fall and Winter Terms | Unit multiplication method | Necessary lower limit units | Necessary lower limit units |
|---|---|---|---|---|---|---|---|---|---|---|
| | (2,1)Inter-disciplinary Subjects | | | | | | | Σ | 0 | |
| 331005 | Informartion Technology and Ethics | Staffs of dept. of Information Systems Engineering Staffs of dept. of Multimedia Engineering (Michio Nakanishi) | 2 | 2 | | | | | | |
| 331006 | English Presentation Skills | Eum Suyong | 2 | *2 | *2 | | | | | |
| 331014 | The Foundation of Intellectual Property (Focusing on Computer Science) | Hidefumi Aoe & Other | 2 | | 2 | | | | | |
| 331030 | Innovation Management | Minoru Eto Yuko Sasahara | 2 | 2 | | | | | | |
| 331135 | Topics in Frontiers of Mathematics | Susumu Ariki | 2 | | 2 | | | | | |
| 331204 | Mathematical Programming | Shunji Umetani | 2 | 2 | | | | | | |
| 331222 | Advanced Introduction to Information Physical Science | All Staff | 2 | 2 | | | | | | |
| 331224 | Knowledge Informatics | Kenichi Fukui | 2 | | 2 | | | | | |
| 331308 | Theory of Distributed System Software | | 2 | | | | | | | |
| 331319 | Theory of Software Design | Shinji Kusumoto Yoshiki Higo | 2 | 2 | | | | | | |
| 331337 | Image Recognition | Yasushi Makihara Daigo Muramatsu | 2 | | 2 | | | | | |
| 331336 | Advanced PBL for Software Development on Cloud Environment | Katsuro Inoue Shinji Kusumoto & Other | 2 | | 2 | | | | | |
| 331404 | Computer-Aided System-on-a-Chip Design | | 2 | | | | | | | |
| 331405 | Integrated Systems Engineering | Koji Nakamae Katsuyoshi Miura | 2 | 2 | | | | | | |
| 331406 | Image Signal Processing | Koji Nakamae Katsuyoshi Miura | 2 | | 2 | | | | | |
| 331408 | Concurrent Systems | | 2 | | | | | | | |
| 331409 | System Interface Design | Haruo Takemura Tomohiro Mashita | 2 | 2 | | | | | | |
| 331419 | Integrated System Architecture and Synthesis | Takao Onoye Ittetsu Taniguchi Yasuhiro Yoshida Kimihiko Imamura Shohei Yamada | 2 | 2 | | | | | | |
| 331420 | Dependable Systems | Tatsuhiro Tsuchiya Hiroyuki Nakagawa | 2 | 2 | | | | | | |
| 331501 | Information Network Design | | 2 | | | | | | | |
| 331502 | Multimedia Network | Morito Matsuoka Shin-ichi Arakawa | 2 | | 2 | | | | | |
| 331507 | Mobile Computing | Teruo Higashino Hirozumi Yamaguchi | 2 | 2 | | | | | | |
| 331508 | Mobile Communication Protocols | | 2 | | | | | | | |
| 331509 | Gigabit Network | Masayuki Murata Go Hasegawa | 2 | | 2 | | | | | |
| 331510 | High-Speed Network Architecture | | 2 | | | | | | | |
| 331511 | Economics of Information Network | Teruo Higashino Hirozumi Yamaguchi (Keita Arai) | 2 | 2 | | | | | | |
| 331709 | Human Information Processing | Taro Maeda Hideyuki Ando | 2 | | 2 | | | | | |
| 331723 | Human Information Engineering | | 2 | | | | | | | |
| 331724 | Introduction to Bioinformatic Engineering | All staff of dept. of Bioinformatic Engineering | 2 | 2 | | | | | | |
| 331732 | Introduction to Integrated Biological and Information Engineering | Hiroshi Shimizu Yoshihiro Toya | 2 | 2 | | | | | | |
| | (2,2)Others | | | | | | | | | |
| | (2,3)Academic Internship Abroad | | | | | | | MAX{(2,3,1),(2,3,2)} | 0 | |
| | (2,3,1)S | | | | | | | | 0 | |
| 331025 | Academic Internship Abroad M(S) | All Staff(Except Collaborative Division) | 4 | 6 | 6 | (※6) | | | | |
| | (2,3,2)L | | | | | | | | 0 | |
| 331027 | Academic Internship Abroad M(L) | | 8 | 12 | 12 | (※12) | | | | |

Note1) 1. Σ= Integrate the total number of credits for subjects with a slant line directly below.
　　　 2. MAX= Integrate only one subject with the maximum number of credits.
　　　 3. The class with * is held twice a year. However, registration is limited according to the department.
　　　 4. The class is not offered this year when the instructor's name field is blank.
　　　 5. Requirements for Completion; Students must receive 30 credits or more from this table, and pass a final evaluation of their master's thesis.
　　　 6. M1 students can register Academic Internship AbroadM(S),M(L) from "fall and winter terms" through "spring and summer terms".

Note2) 1. The requirements to complete "Cloud Spiral" course shall be prescribed separately.
　　　 2. 331332, 331333 and 331336 are offered only for "Cloud Spiral" course students. (held at Nakanoshima center)

Note3) The requirements to complete "SecCap" course shall be prescribed separately.