# Master's Program Subject and Completion Requirements 2020

**Department of Multimedia Engineering**

| Code | Classification | A completion requirements item name and subject name | Instructor | Unit | School hour a week 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | | | | | | | 1+2 | 30 | |
| | | 1.Advanced Liberal Arts Educational subjects (select from the attached list "「高度教養教育科目リスト(マルチメディア工学専攻」 | | | | | | | | 2 | |
| | | 2.Major Subjects・Advanced Global Literacy Educational subjects | | | | | | | (1)+(2) | 28 | |
| | | (1)Core Subjects | | | | | | | (1,1)+(1,2)+(1,3) | 22 | |
| | | (1,1)Core Subjects(Required) | | | | | | | Σ | 4 | 4 |
| 331625 | M | Research on Multimedia Engineering Ia | All Staff | 2 | 6 | | | | | | |
| 331626 | M | 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) | 4 | 4 |
| | | (1,2,1)Required Elective Subjects 1 | | | | | | | Σ | 0 | |
| 331613 | M | Exercises on Multimedia Engineering I | All Staff | 2 | 4 | | | | | | |
| 331614 | M | Exercises on Multimedia Engineering II | All Staff | 2 | | 4 | | | | | |
| | | (1,2,2)Required Elective Subjects 2 | | | | | | | Σ | 0 | |
| 331527 | M | Exercises on Information Security I | Morito Matsuoka Yuki Koizumi Naoto Yanai (Shingo Okamura) | 2 | 2 | 2 | | | | | |
| 331528 | M | Exercises on Information Security II | Morito Matsuoka Yuki Koizumi Naoto Yanai (Shingo Okamura) | 2 | 2 | 2 | | | | | |
| | | (1,2,3)Required Elective Subjects 3 | | | | | | | Σ | 0 | |
| 331426 | M | Introduction to Exercises on Information Engineering for Interactive Creation A | Taro Maeda Haruo Takemura Toru Fujiwara Yuki Uranishi 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 | M | Architecture for Multimedia Systems | Shinji Shimojo Susumu Date Kazuhide Kojima Yoshiyuki Kido | 2 | 2 | | | | | | |
| 331635 | M | Big Data Engineering | | 2 | | | | | | | |
| 331636 | M | Big Data Analytics | Makoto Onizuka Yuya Sasaki | 2 | 2 | | | | | | |
| 331610 | M | Multimedia Agent | Norihiro Hagita Takahiro Miyashita Satoshi Satake | 2 | | | 2 | | | | |
| 331611 | M | Seminar on Multimedia Engineering I | All Staff | 2 | 2 | | | | | | |
| 331612 | G・M | Seminar on Multimedia Engineering II | All Staff | 2 | | 2 | | | | | |
| 331619 | M | Multimedia Data Engineering | Takahiro Hara Takuya Maekawa Tadashi Nakano Renee Patrizia Shultz | 2 | 2 | | | | | | |
| 331620 | M | Database Systems | | 2 | | | | | | | |
| 331621 | M | Information Security | | 2 | | | | | | | |
| 331622 | M | Content Security | Toru Fujiwara Atsuo Inomata Kenji Yasunaga | 2 | 2 | | | | | | |
| 331637 | M | Robot Vision | Yasuyuki Matsushita | 2 | | | 2 | | | | |
| 331638 | M | Machine Vision | | 2 | | | | | | | |
| 331627 | M | Research on Multimedia Engineering IIa | All Staff | 2 | | | 6 | | | | |
| 331628 | M | Research on Multimedia Engineering IIb | All Staff | 2 | | | | 6 | | | |
| 331629 | M | Special Lectures on Multimedia Engineering | (Osamu Yonetani) (Osamu Shirakawa) (Yasuhiro Fujiwara) (Hideki Kashioka) (Toshiyasu Sugio) (Katsuyoshi Yamagami) (Masahiro Iwasaki) | 2 | | | 2 | | | | |
| 331639 | G・M | Studies on International Integrated Sciences | Leibnitz Kenji Ferdinand Peper Cruz Jason Paul Miranda | 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 | M | Internship on Multimedia Engineering | All Staff(Except Collaborative Division) | 2 | 3 | 3 | | | | | |
| | | (1,3,2,2) | | | | | | | | 0 | |
| 331633 | M | 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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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (2,1)Inter-disciplinary Subjects | | | | | | | Σ | 0 | |
| 331005 | M | Informartion Technology and Ethics | Staffs of dept. of Information Systems Engineering Staffs of dept. of Multimedia Engineering (Michio Nakanishi) | 2 | 2 | | | | | | |
| 331006 | G・M | English Presentation Skills | Bettina Wutzl | 2 | *2 | *2 | | | | | |
| 331014 | M | The Foundation of Intellectual Property (Focusing on Computer Science) | (Shuichi Mukai) (Tsuyoshi Masuda) &Other | 2 | | 2 | | | | | |
| 331030 | M | Innovation Management | Minoru Eto Yuko Sasahara | 2 | 2 | | | | | | |
| 331135 | M | Topics in Frontiers of Mathematics | Masaaki Wada | 2 | | 2 | | | | | |
| 331203 | M | Computational Informatics | Takayuki Wada | 2 | | 2 | | | | | |
| 331204 | M | Mathematical Programming | Shunji Umetani | 2 | 2 | | | | | | |
| 331208 | M | Advanced Statistical analysis | Hiroshi Morita | 2 | | 2 | | | | | |
| 331222 | M | Advanced Introduction to Information Physical Science | All Staff | 2 | 2 | | | | | | |
| 331224 | M | Knowledge Informatics | Kenichi Fukui | 2 | | 2 | | | | | |
| 331307 | M | Algorithm Design | Toshimitsu Masuzawa | 2 | | 2 | | | | | |
| 331308 | M | Theory of Distributed System Software | | 2 | | | | | | | |
| 331319 | M | Theory of Software Design | Shinji Kusumoto Yoshiki Higo | 2 | 2 | | | | | | |
| 331337 | M | Image Recognition | Yasushi Makihara | 2 | | 2 | | | | | |
| 331404 | M | Computer-Aided System-on-a-Chip Design | | 2 | | | | | | | |
| 331408 | M | Concurrent Systems | | 2 | | | | | | | |
| 331409 | M | System Interface Design | Haruo Takemura | 2 | 2 | | | | | | |
| 331419 | M | Integrated System Architecture and Synthesis | Takao Onoye Ittetsu Taniguchi Norio Ito Kimihiko Imamura Shouhei Yamada | 2 | 2 | | | | | | |
| 331420 | M | Dependable Systems | Tatsuhiro Tsuchiya Hiroyuki Nakagawa | 2 | 2 | | | | | | |
| 331501 | M | Information Network Design | | 2 | | | | | | | |
| 331502 | M | Multimedia Network | Morito Matsuoka Shin-ichi Arakawa | 2 | | 2 | | | | | |
| 331507 | M | Mobile Computing | Teruo Higashino Hirozumi Yamaguchi | 2 | 2 | | | | | | |
| 331508 | M | Mobile Communication Protocols | | 2 | | | | | | | |
| 331509 | M | Gigabit Network | Masayuki Murata | 2 | | 2 | | | | | |
| 331510 | M | High-Speed Network Architecture | | 2 | | | | | | | |
| 331511 | M | Economics of Information Network | Teruo Higashino Hirozumi Yamaguchi (Keita Arai) | 2 | 2 | | | | | | |
| 331525 | M | Advanced Introduction to Information Networking | All staff of dept. of Information Networking | 2 | | 2 | | | | | |
| 331709 | M | Human Information Processing | Taro Maeda | 2 | | 2 | | | | | |
| 331720 | M | Bio-network Engineering | Naoki Wakamiya Masaki Ogura | 2 | 2 | | | | | | |
| 331721 | M | Basic Theory of Bio-networks | | 2 | | | | | | | |
| 331723 | M | Human Information Engineering | | 2 | | | | | | | |
| 331724 | M | Introduction to Bioinformatic Engineering | All staff of dept. of Bioinformatic Engineering | 2 | 2 | | | | | | |
| 331732 | M | Introduction to Integrated Biological and Information Engineering | Hiroshi Shimizu Fumio Matsuda Yoshihiro Toya Nobuyuki Okahashi | 2 | 2 | | | | | | |
| 331031 | M | Humanware Fundamentals I M | Takahiro Hara Kazufumi Hosoda Satoru Iwasaki MAHZOON HAMED Yuichi Sudo | 2 | 2 | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 331032 | M | Humanware Fundamentals II M | Takahiro Hara Satoru Iwasaki Yusuke Ogura Ittetsu Taniguchi Shin-ichi Arakawa Kenji Yasunaga Nobuyuki Okahashi Yuichi Sudo Kazufumi Hosoda | 2 |  | 2 |  |  |  |  |  |
| 331033 | M | Humanware Innovation Creation M | Masanori Hashimoto Takahiro Hara Kazufumi Hosoda | 2 |  | 2 |  |  |  |  |  |
| 331034 | M | Humanware Seminar M | Hiroshi Shimizu MAHZOON HAMED Ittetsu Taniguchi Shin-ichi Arakawa Satoru Iwasaki Kazufumi Hosoda | 2 | 1 | 1 |  |  |  |  |  |
| 331035 | M | Humanware Innovation Introduction M | Tatsuhiro Tsuchiya Naoki Wakamiya | 2 | 1 | 1 |  |  |  |  |  |
| 331036 | M | Humanware Communication M | Yusuke Ogura Takahiro Hara Kazufumi Hosoda | 2 |  |  | 1 | 1 |  |  |  |
| 331037 | M | Humanware Laboratory Rotation M | Fumihiko Ino Hiroshi Shimizu | 2 | 1 | 1 |  |  |  |  |  |
| 331038 | M | Internship (Short Term) M | Naoki Wakamiya Kenji Yasunaga Satoru Iwasaki | 2 | 3 | 3 |  |  |  |  |  |
| 331039 | M | Internship (Long Term) M | Naoki Wakamiya Kenji Yasunaga Satoru Iwasaki | 4 | 6 | 6 |  |  |  |  |  |
|  |  | (2,2)Others |  |  |  |  |  |  |  |  |  |
|  |  | (2,3)Academic Internship Abroad |  |  |  |  |  |  | MAX{(2,3,1),(2,3,2),(2,3,3)} | 0 |  |
|  |  | (2,3,1) |  |  |  |  |  |  |  | 0 |  |
| 331040 | G・M | Overseas Internship (Short Term) M | Naoki Wakamiya Satoru Iwasaki | 2 | 3 | 3 |  |  |  |  |  |
|  |  | (2,3,2) |  |  |  |  |  |  |  |  |  |
| 331025 | G・M | Academic Internship Abroad M(S) | All Staff | 4 | 6 | 6 | (※6) |  |  |  |  |
| 331041 | G・M | Overseas Internship (Long Term) M | Naoki Wakamiya Satoru Iwasaki | 4 | 6 | 6 |  |  |  |  |  |
|  |  | (2,3,3) |  |  |  |  |  |  |  | 0 |  |
| 331027 | G・M | Academic Internship Abroad M(L) | All Staff | 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. In the 30 credits, students must include 27 credits of Major subjects, 1 credit of Advanced Global Literacy Educational subjects, and 2 credits of Advanced Liberal Arts Educational subjects.
6. M1 students can register Academic Internship AbroadM(S),M(L) from "fall and winter terms" through "spring and summer terms".
7. "M" in the classification column represents Major subjects, "G" represents Advanced Global Literacy Educational subjects, and "G・M" represents subjects with both Advanced Liberal Arts Educational and Major subjects' characteristics.
8. If you have acquired subjects with both Advanced Liberal Arts Educational and Major subjects' characteristics, the credits will be included preferentially for Advanced Global Literacy Educational subjects. If 1 credit of Advanced Global Literacy Educational subjects is already fulfilled, the credits will be included for Major subjects.
9. With regard to Advanced Liberal Arts Educational subjects offered by other graduates schools (or other institutions) in Osaka university, the subjects approved by Department of Multimedia Engineering can be included for Requirements for Completion up to 2 credits.
　For details, please refer the attached "「高度教養教育科目リスト（マルチメディア専攻）」.
10. Only Humanware Innovation Program students can register subjects from 331037 to 331041.

Note2)
The requirements to complete "SecCap" course shall be prescribed separately.