

RIVER-COASTAL SCIENCE AND ENGINEERING, MS (NON-RESIDENTIAL)

Overview

The River-Coastal Science and Engineering program is an effort by faculty and students to understand a key component of the Earth system—the linked environments of river basins, deltaic river mouths, and coastal ocean systems. Much of our focus surrounds the nexus issue of water: water exerts a strong control over landform evolution and ecosystem health, and is a priority human need for agriculture, industry, and health.

This 30 credit degree for non-residential students is designed to allow professionals to acquire the degree remotely while employed. Non-residential students may elect the thesis pathway (24 hours of classroom credit + 6 research credits) described in the residential Masters description or have the option to complete 30 credit hours of coursework. There is also the opportunity in the non-thesis track to undertake a smaller-scale research project while enrolled in RCSE 6900 Independent Study. Either non-residential pathway can be taken on a part-time or full-time (+9 credit hours per semester) basis. We envision that most students who pursue this degree will have acquired the Graduate Certificate as an intermediate step, which provides an opportunity for the student to arrange their funding through their employer and to potentially conceive a research project they would conduct after becoming degree seeking that fits their individual work-life issues.

Requirements

All students must complete 30 graduate credit hours in order to obtain the degree.

- M.S. students can transfer up to 12 credit hours from previous graduate-level coursework to the degree. The RCSE Graduate Advisor must approve all transfer credits.
- Students hoping to transfer graduate credits should prepare and submit the paperwork at the start of their second semester at Tulane. SSE will only transfer credits when the student has completed one semester (it is at that point that a Tulane transcript is available).
- Academic graduate electives from other Tulane departments may be applied to the degree up to a limit of 9 credit hours. All other courses must originate from RCSE. If a class is not on the approved list, a student may petition the Graduate Advisor for it to be accepted as an elective.
- All credits earned in obtaining the RCSE Graduate Certificate in River-Coastal Science and Engineering will count toward the 30 credit limit required for the MS degree, regardless of whether the student pursues the thesis option or not.
- Thesis track students must enroll in 3 credits of Masters Research (RCSE 9980 Masters Research (0 to 3 c.h.)) over two semesters (6 credits total). Typically, students do this in their 3rd and 4th semesters.
- Note that non-resident MS students typically do NOT register for any credits over the summer as it is anticipated that they will not be supported financially under a research assistantship.
- Unless students have been exposed previously to the material offered, students are strongly encouraged to take two introductory technical courses offered by the RCSE, RCSE 6800 Intro to River Science & Eng (3 c.h.) and RCSE 6802 Introduction to Coastal Science and Engineering (3 c.h.).

| Course ID | Title | Credits |
|-----------|---|---------|
| RCSE 6010 | Water Resources Engineering I (offered Summer Session) | 3 |
| RCSE 6020 | Water Resources Engineering II (offered Fall semester) | 3 |
| RCSE 6030 | Water Resources Engineering III (offered Spring semester) | 3 |
| RCSE 6040 | Coastal Marine Geology (offered Spring semester, even years) | 3 |
| RCSE 6660 | Special Topics (offered periodically) | 1-3 |
| RCSE 6710 | Open Channel Flow (offered Spring semester, odd years) | 3 |
| RCSE 6800 | Intro to River Science & Eng (offered every Spring semester) | 3 |
| RCSE 6802 | Introduction to Coastal Science and Engineering (offered every Fall semester) | 3 |
| RCSE 6810 | River and Stream Restoration (offered Spring semester, even years) | 3 |
| RCSE 6820 | Introduction to River-Coastal Hydrologic and Hydraulic Modeling (offered Spring semester, even years) | 3 |
| RCSE 6830 | River Mechanics & Management (offered Fall semester, even years) | 3 |
| RCSE 6840 | Methods in River Sampling (offered Spring semester, odd years) | 3 |
| RCSE 6850 | Estuarine Processes (offered Spring semester, odd years) | 3 |
| RCSE 6860 | Environmental Data Analysis in the Anthropocene (offered Spring semester, even years) | 3 |
| RCSE 6865 | Sea-Level Change (offered Spring semester, odd years) | 3 |
| RCSE 6870 | Hydroclimatology (offered Fall semester, odd years) | 3 |

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| RCSE 6875 | Ecohydrology (offered Fall semester, even years) | 3 |
| RCSE 6900 | Independent Study (Every semester) | 1-3 |
| RCSE 7020 | Research Skills, Information Literacy and Scientific Writing (offered every Fall semester) | 3 |
| RCSE 7100 | Seminar in River Coastal Science and Engineering (Every semester) | 1 |
| RCSE 9980 | Masters Research | 3 |

M.S. students must enroll in three semesters of the 1 credit Seminar course RCSE 7100 Seminar in River Coastal Science and Engineering (1 c.h.). The goal of this is to expose students to state-of-the-art research topics and methodologies in concert with the departmental seminar series.

Program String and Field of Study: SEMS_GR, RCSE

Contact

For more information, contact the School of Science and Engineering (<https://sse.tulane.edu/river/about/contact/>).