Degree Options

Concentrations

Definition

A Concentration is an option associated with a major which provides recognition for focused and coordinated academic work either within the major or within an area of study closely related to the major.

Rules

1. All Concentrations require completion of two units of integrated academic study plus an MQP with a topic and content appropriate to the given Concentration.
2. Concentrations deemed to belong exclusively or primarily within the stated major must be accommodated within the distribution requirements of that major.
3. Concentrations deemed to have a substantial interdisciplinary nature can exceed the normal 10-unit allotment of the major by as much as 1 unit, provided that the additional requirements do not include or permit academic work designated by the major prefix or coursework normally taken to satisfy the major's portion of the distribution requirements. Furthermore, Concentrations of an interdisciplinary nature are permitted to use up to 1 unit of the academic program beyond the distribution requirements of the major, including the IQP, Social Science requirement, and Free Electives, as deemed appropriate.
4. The requirements of the Concentration must be designed to offer choices for the student within the major area and, if relevant, outside the distribution requirements of the major; however, the Concentration requirements must not preclude meeting the normal distribution requirements for the major.
5. Rules and guidelines for each Concentration will be formulated by the faculty associated with the governing major, and must be reviewed by the Committee on Academic Operations (CAO) and subsequently approved by the Faculty. CAO is empowered to rule on whether a proposed Concentration is disciplinary or interdisciplinary.
6. An individual program of study leading to a major with a Concentration will be planned by a student in consultation with his/her academic advisor. The student's intention to pursue a Concentration will be declared by application to the appropriate Program Review Committee in accordance with that Committee's schedule of deadlines. Application deadlines should be designed to enable Committee review and communication of decisions to students at a sufficiently early point that flexibility of schedule still exists. Extenuating circumstances may be considered at the discretion of the Program Review Committee.
7. Concentrations and minors are additional degree designations. Any credit earned for an additional degree designation **must not overlap with credit earned for another additional degree designation by more than one unit. Also, no credit-bearing activity may be triple-counted** towards degree designations or degree requirements.

Minors

Definition

A minor is a thematically-related set of academic activities leading to a degree designation in addition to but separate from that granted by the major. A minor should be available to students of any major, with the exception of a minor which overlaps with a major area to such an extent that it is not sufficiently distinct from that major. The Committee on Academic Operations (CAO) is responsible for the review of proposed minor programs and decisions regarding allowed major/minor combinations.

Rules

1. A minor requires completion of two or more units of thematically related activity. Individual departments may impose additional restrictions such as a capstone or integrative experience. Students should consult individual minor Program descriptions in Section 2 of this catalog for these restrictions.

2. It is expected that minor requirements will be structured so that all acceptable major/minor combinations can be accommodated within a normal 16 term framework.
3. A minor may include any portion of the academic program, excluding the MQP. Academic activities used in satisfying the regular degree requirements may be double-counted toward meeting **all but one unit of the minor requirements**, subject to the following restrictions:
    1. The one unit of double-counted work may include at most 1/3 unit of the IQP, 3/3 units of the Humanities and Arts Requirement, or a combination thereof.
    2. At least one unit of the minor must be free elective choices.
4. The Program Review Committee for a minor area will consist of faculty members designated by the sponsoring faculty members.
5. A minor area must be proposed by a sponsoring group of faculty and must be defined by the purpose of achieving an educational goal beyond those apparent or implicit in the regular degree requirements. Student- initiated minor programs must be developed with the approval of a sponsoring group of faculty advisors. Each minor program must be reviewed by CAO for its individual merit.
6. Minors are additional degree designations. Any credit earned for an additional degree designation **must not overlap with credit earned for another additional degree designation by more than one unit. Also, no credit-bearing activity may be triple-counted** towards degree designations or degree requirements.

Minors are described in the "Program Description" section of this catalog. Minors sponsored by a department are described following the department. Others are listed in the "Interdisciplinary Minors" section. Follow this link to the current list of approved minors:

[WPI Minors Listing](#)

Interdisciplinary or Individually Designed (ID) minors are approved by the Committee on Academic Operations (CAO).

The form needed to declare a minor or to propose an interdisciplinary or individually designed minor can be found under [Curriculum Adjustments](#) on the Registrar's Office website.

Double Majors

An option for some students who wish to broaden their WPI experience is the completion of two distinct majors through the double major option. The choice to pursue a double major should be made early in a student's career. No student shall complete more than two undergraduate majors.

A double major should signify capacity in two distinct disciplines. Some combinations of double majors are not sufficiently distinct to merit this designation. Departments and programs decide whether any combinations of double majors overlap to such an extent as to be disallowed. As of the publication date of this catalog, the following combinations are not allowed:

- Actuarial Mathematics and Mathematical Sciences
- Aerospace Engineering and Mechanical Engineering
- Biochemistry and Chemistry
- Business and Management Engineering
- Business and Management Information Systems
- Civil Engineering and Architectural Engineering
- Civil Engineering and Environmental Engineering
- Industrial Engineering and Management Engineering with Concentration in Industrial Engineering
- Interactive Media and Game Development Technology and Interactive Media and Game Development
- Management Information Systems and Management Engineering with Concentration in Information Technology
- Physics and Applied Physics

Students who wish to pursue any double major should consult with faculty advisors in both majors. Exceptions to disallowed double majors must be approved by the Committee on Academic Operations.

Degree requirements for double majors are as follows

1. **Distribution Requirements.** The distribution requirements of each major must be met, but requirements common to both majors have to be met only once.
2. **The Humanities and Arts Requirement.** No modifications are made to the Humanities and Arts Requirement for double majors. All students, including majors in Humanities and Arts or International and Global Studies must satisfactorily complete the Humanities and Arts Requirement culminating in an Inquiry Seminar or Practicum
3. **The Interactive Qualifying Project.** If one of the majors of a double major is in Social Science and Policy Studies, a single project bearing at least one unit credit may be used to satisfy both the MQP requirement for the SSPS major and the IQP requirement. In order to be used to satisfy both requirements, the combined social science MQP and IQP must meet the goals of both projects. It must be interactive in nature involving an aspect of technology, and must also be an application of social science knowledge and analytical techniques. In order to select a single project that satisfies both the goals of the MQP and the goals of the IQP, the decision to pursue a social science double major needs to be made fairly early in the student's career.
4. **The Major Qualifying Project.** The MQP requirements for Double Majors may be fulfilled in either one of two ways:
   1. Option 1: Two distinct projects, one in each major, each of at least one unit of credit.
   2. Option 2: One interdisciplinary project of at least 4/3 units of credit, and having significant work associated with each major. An interdisciplinary project must be:
      ◦ jointly advised by at least two faculty members, one associated with each of the relevant degree programs; OR
      ◦ advised by a single faculty member who is associated with both of the relevant degree programs.

Faculty associated with each degree program are listed on the departmental page. Please follow this link for a directory of WPI Faculty.

An interdisciplinary MQP involving social science may not be used as an IQP.

The interdisciplinary MQP option takes advantage of the value of interdisciplinary work at the intersection of the two majors. Students undertaking an interdisciplinary MQP must complete an *interdisciplinary MQP approval form* in advance of project registration, and this form must be signed by all advisor(s) on the project. This form must contain a summary of the proposed project work indicating the content relating to each major. The interdisciplinary MQP option is available only at the discretion of the faculty and only when all faculty advisor(s) agree on the project content. Students planning to use this option should identify and consult with their faculty advisor(s) well before the end of their junior year.

For a double major, completion of a 4/3 unit interdisciplinary MQP completes the 1 unit MQP requirement for each major. The assignment of credit is as follows: 2/3 unit is double counted toward each major, and the remaining 2/3 unit is allocated as 1/3 unit to one major and 1/3 unit to the other major.

Note: It is anticipated that in some cases a student pursuing a double major will join a project team whose other members are pursuing a single major. The double-majoring student will bring the interdisciplinary content to the project, and this additional work will be represented by the additional credit that that student (perhaps only that student) earns, and with an enlarged report prepared by that student.

For students wishing to pursue double majors, the program audit for each intended major must be completed and certified by the review committee of each department involved. Academic activities appropriate to both majors may be counted in both majors. For the policy in the special situation of double majors involving the social sciences see the Social Science and Policy Studies department description in Section 2 and the Double Major Distribution Requirements in Section 4 of the Undergraduate Catalog.

Certain interdisciplinary MQP's and corresponding double-majors in the same department are not allowed.

Interdisciplinary MQP's with two faculty advisors: All faculty advisors have equal status in approving the final project, and a single grade is submitted for each term's work and a single project grade is submitted on the CDR form. Should an interdisciplinary MQP, once completed, be deemed acceptable as an MQP for one of the two majors, but not for the other, and/or if the faculty advisors cannot agree on a single grade after much effort to do so, the project may be considered as the MQP for a single major. This conversion can only occur with the consent of the student and the advisor(s) from the single major being selected.