# INFORMATION TECHNOLOGY/ INFORMATION TECHNOLOGY LEADERSHIP AND STRATEGY (BA/MPS)

The accelerated BA Information Technology (BA IT)/MPS IT Leadership and Strategy program is an online program that gives academically successful Loyola SCPS BA IT majors the opportunity to pursue the MPS degree in IT Leadership and Strategy while completing their BA degree. This program reduces the total number of courses needed and the total time needed for the combined degrees. Current accelerated bachelors/master's degree programs at LUC allow qualified students to take up to four graduate-level courses as undergraduates. This program will allow students in the BA IT program to take four of the courses from the MPS IT Leadership and Strategy in their senior year. These courses will be taken as both major and elective course and will count toward the degree requirements for both programs.

## Related Programs

### Major

- Information Technology (BA) (https://catalog.luc.edu/undergraduate/continuing-professional-studies/information-technology-ba/)

## Curriculum

| Code | Title | Hours |
|---|---|---|
| **BA Requirements** | | |
| CPST 250 | Foundations of Organizations | 3 |
| CPST 310 | Accounting Principles and Application | 3 |
| CPST 349 | Project Management [2] | 3 |
| STAT 103 | Fundamentals of Statistics | 3 |
| COMP 170 | Introduction to Object-Oriented Programming | 3 |
| COMP 251 | Introduction to Database Systems | 3 |
| COMP 271 | Data Structures I | 3 |
| CPST 291 | Dynamic Programming Languages | 3 |
| CPST 325 | Data Processing, Analysis, and Visualization | 3 |
| CPST 342 | Introduction to Web Application Development | 3 |
| CPST 343 | Software Development for Mobile Devices | 3 |
| COMP 317 | Social, Legal, and Ethical Issues in Computing [2] | 3 |
| CPST 345 | Introduction to IT: Networking, Cloud & Security [2] | 3 |
| *SCPS Courses* | | |
| CPST 200 | Introduction to Degree Completion | 3 |
| CPST 201 | Civic Identity and Development | 3 |
| CPST 397 | Capstone | 3 |
| *Core Requirements* | | |
| The number of hours remaining toward Core requirements can very due to transfer credit. [1] | | |
| *Mission Specific Requirements* | | |
| Mission specific requirements can vary from 0 to 15 credit hours based on your prior credit. | | |
| *General Elective Requirements* | | |
| Students may have some general elective coursework to complete if their transfer credit and remaining required hours (Core, mission specific, major, etc.) do not total 120. | | |
| **MPS Requirements** | | |
| COMP 417 | Social and Ethical Issues in Computing [2] | 3 |
| COMP 477 | IT Project Management [2] | 3 |
| ITLS 445 | Introduction to IT: Networking, Cloud & Security [2] | 3 |
| ITLS 447 | Cybersecurity Governance, Planning, and Incident Response | 3 |
| ITLS 449 | Advanced Topics: Emerging Technologies | 3 |
| ITLS 451 | Human-Centered Management | 3 |
| ITLS 453 | Developing Strategic Plans | 3 |
| Select three (3) ITLS Electives courses - 400-level or above (p. 1) [3] | | 9 |
| **Total Hours** | | **69** |

1. Core Requirements - Learn More (https://catalog.luc.edu/undergraduate/university-requirements/university-core/)
2. Up to 12 credit hours can be shared between the undergraduate and graduate degree. Three of the MPS degree courses will count toward the BA IT major requirements: COMP 477 IT Project Management (in lieu of CPST 349), COMP 417 Social and Ethical Issues in Computing (in lieu of COMP 317), and ITLS 445 Introduction to IT: Networking, Cloud & Security (in lieu of CPST 345). These courses will be taken during the students' senior year as an undergraduate. One other graduate course from the MPS degree will be taken as an elective during the student's senior year.
3. Electives will be selected from existing graduate courses (400 level or higher) at Loyola University Chicago. They will typically be chosen from SCPS (and may include courses in all graduate programs housed in SCPS) and the Computer Science Department. Electives will be determined in conjunction with the program director.

### Electives

| Code | Title | Hours |
|---|---|---|
| COMP 403 | Operations Management | 3 |
| COMP 420 | Software Systems Analysis | 3 |
| COMP 422 | Software Development for Wireless and Mobile Devices | 3 |
| COMP 424 | Client-Side Web Design | 3 |
| COMP 441 | Human-Computer Interaction | 3 |
| COMP 443 | Computer Networks | 3 |
| COMP 447 | Intrusion Detection and Computer Forensics | 3 |
| COMP 488 | Computer Science Topics | 1-4 |
| INDN 420 | Instructional Design Theories and Models | 3 |
| INDN 421 | Design & Development of Instructional Materials | 3 |
| INDN 430 | Performance Improvement in Organizations | 3 |
| INDN 431 | Fundamentals of Learning Analytics | 3 |
| INDN 440 | Applications of Human Centered Design Principles | 3 |
| MPP 400 | Policy Design and Analysis | 3 |
| MPP 401 | Analytical Tools in Public Policy | 3 |
| MPP 403 | Public Budget and Finance | 3 |
| MPP 404 | Public Policy Process | 3 |
| MPP 405 | Statistical Methods & Analysis for Public Policy I | 3 |
| MPP 406 | Statistical Methods & Analysis Public Policy II | 3 |

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|---|---|---|
| MPP 410 | Special Topics in Public Policy | 3 |
| MPP 413 | Intergovernmental Relations | 3 |
| PSLD 400 | Introduction to Public Service | 3 |
| PSLD 402 | Foundations of Global Strategic Communication | 3 |
| PSLD 403 | Program Management and Development | 3 |
| PSLD 404 | Data, Visualization and Evaluation | 3 |
| PSLD 405 | Design Thinking in Mitigating Complex Social Problems | 3 |
| PSLD 430 | Understanding and Mitigating Poverty | 3 |
| PSLD 431 | Foundations of Social and Sustainable Development | 3 |
| PSLD 432 | Gender Diversity & Sustainable Social Development | 3 |
| PSLD 433 | Social Analysis Inequality Poverty and Development | 3 |

# Suggested Sequence of Courses

The School of Continuing and Professional Studies provides a high-touch advising model in order to incorporate the professional and educational outcomes of the student as well as any transfer credit accepted. In order to provide students with maximum flexibility in their education and because everyone's academic background will vary, advisors will work directly with students to determine an appropriate sequence of courses starting at admission into their respective program based on their needs and expected time to completion.

Three of the MPS courses will be taken during the students' senior year as an undergraduate: COMP 477 IT Project Management, COMP 417 Social and Ethical Issues in Computing, and ITLS 445 Introduction to IT: Networking, Cloud & Security.

# Guidelines for Accelerated Bachelor's/ Master's Programs

### Terms

- Accelerated Bachelor's/Master's programs: In this type of program, students share limited credits between their undergraduate and graduate degrees to facilitate completion of both degrees.
- Shared credits: Graduate level credit hours taken during the undergraduate program and then applied towards graduate program requirements will be referred to as shared credits.

### Admission Requirements

Accelerated Bachelor's/Master's programs are designed to enhance opportunities for advanced training for Loyola's undergraduates. Admission to these programs must be competitive and will depend upon a positive review of credentials by the program's admissions committee. Accordingly, the admission requirements for these programs may be higher than those required if the master's degree were pursued entirely after the receipt of a bachelor's degree. That is, programs may choose to have more stringent admissions requirements in addition to those minimal requirements below.

Requirements:

- Declared appropriate undergraduate major,
- By the time students begin taking graduate courses as an undergraduate, the student has completed approximately 90 credit hours, or the credit hours required in a program that is accredited by a specialty organization,[1]
- A minimum cumulative GPA for coursework at Loyola that is at or above the program-specific requirements, a minimum major GPA that is at or above the program-specific requirements, and/or appropriate designated coursework for evaluation of student readiness in their discipline.[2]

Students not eligible for the Accelerated Bachelor's/Master's program (e.g., students who have not declared the appropriate undergraduate major) may apply to the master's program through the regular admissions process. Students enrolled in an Accelerated Bachelor's/Master's program who choose not to continue to the master's degree program upon completion of the bachelor's degree will face no consequences.[3]

Ideally, a student will apply for admission (or confirm interest in proceeding towards the graduate degree in opt-out programs) as they approach 90 credit hours. Programs are encouraged to begin advising students early in their major so that they are aware of the program and, if interested, can complete their bachelor's degree requirements in a way that facilitates completion of the program. Once admitted as an undergraduate, Program Directors should ensure that students are enrolled using the plan code associated with the Accelerated Bachelor's/Master's program. Using the plan code associated with the Accelerated Bachelor's/Master's program will ensure that students may be easily identified as they move through the program. Students will not officially matriculate into the master's degree program and be labeled as a graduate student by the university, with accompanying changes to tuition and Financial Aid (see below), until the undergraduate degree has been awarded. Once admitted to the graduate program, students must meet the academic standing requirements of their graduate program as they complete the program curriculum.

1 Programs that have specialized accreditation will adhere to the admissions criteria provided by, or approved by, their specialized accreditors.

2 The program will identify appropriate indicators of student readiness for graduate coursework (e.g., high-level performance in 300 level courses). Recognizing differences between how majors are designed, we do not specify a blanket requirement.

3 If students choose not to enroll in the Accelerated Bachelor's/Master's program, they still must complete all of the standard requirements associated with the undergraduate degree (e.g., a capstone).

For more information on Admissions requirements, visit here (https://gpem.luc.edu/portal/admission/?tab=home).

### Curriculum

*Level and progression of courses.* The Accelerated Bachelor's/Master's programs are designed to be competitive and attractive to our most capable students. Students admitted to Accelerated Bachelor's/Master's programs should be capable of meeting graduate level learning outcomes. Following guidance from the Higher Learning Commission, only courses taken at the 400 level or higher (including 300/400 level courses taken at the 400 level) will count toward the graduate program.[1,2] Up to 50% of the total graduate level credit hours, required in the graduate program, may come from 300/400 level courses where the student is enrolled in the 400 level of the course. Further, at least 50% of the credit hours for the graduate program must come from courses that are designed for and restricted to graduate students who have been admitted to a graduate program at Loyola (e.g., enrolled in plan code that indicates the Accelerated Bachelor's/Master's program, typically ending with the letter "D").[3]

In general, graduate level coursework should not be taken prior to admission into the Accelerated Bachelor's/Master's program. Exceptions may be granted for professional programs where curriculum for the Accelerated Bachelor's/Master's program is designed to begin earlier. On the recommendation of the program's Graduate Director, students may take one of their graduate level courses before they are admitted to the Accelerated Bachelors/Master's program if they have advanced abilities in their discipline and course offerings warrant such an exception.[4] Undergraduate degree requirements outside of the major are in no way impacted by admission to an Accelerated Bachelor's/Master's program.[5]

*Shared credits.* Undergraduate courses (i.e., courses offered at the 300 level or below) cannot be counted as shared credits nor count towards the master's degree. Up to 50% of the total graduate level credit hours, required in the graduate program, may be counted in meeting both the undergraduate and graduate degree requirements. Of those shared credits, students in an Accelerated Bachelor's/Master's program should begin their graduate program with the standard introductory course(s) for the program whenever possible. So that students may progress through the Accelerated Bachelor's/Master's program in a timely manner, undergraduate programs are encouraged to design their curriculum such that a student can complete some required graduate credit hours while completing the undergraduate degree. For instance, some of the graduate curriculum should also satisfy electives for the undergraduate major.

The program's Graduate Director will designate credit hours to be shared through the advising form and master's degree conferral review process. Shared credit hours will not be marked on the undergraduate record as having a special status in the undergraduate program. They will be included in the student's undergraduate earned hours and GPA. Graduate credit hours taken during the undergraduate program will not be included in the graduate GPA calculation.

1 If students wish to transfer credits from another university to Loyola University Chicago, the program's Graduate director will review the relevant syllabus(es) to determine whether it meets the criteria for a 400 level course or higher.

2 Programs with specialized accreditation requirements that allow programs to offer graduate curriculum to undergraduate students will conform to those specialized accreditation requirements.

3 In rare cases, the Graduate Director may authorize enrollment in a 400-level course for a highly qualified and highly motivated undergraduate, ensuring that the undergraduate's exceptional participation in the graduate class will not diminish in any way the experience of the graduate students regularly enrolled.

4 For example, if a particular course is only offered once every 2-3 years, and a student has demonstrated the necessary ability to be successful, the Graduate Director may allow a student to take a graduate level course to be shared prior to the student being formally admitted to the graduate program. See, also, footnote 3.

5 Students should not, for example, attempt to negotiate themselves out of a writing intensive requirement on the basis of admission to a graduate program.

### Graduation

Degrees are awarded sequentially. All details of undergraduate commencement are handled in the ordinary way as for all students in the School/College/Institute. Once in the graduate program, students abide by the graduation deadlines set forth by the graduate program. Students in these programs must be continuously enrolled from undergraduate to graduate degree program unless given explicit permission by their program for a gap year or approved leave of absence. In offering the option of an Accelerated Bachelor's/Master's program, the university is making possible the acceleration of a student's graduate degree completion. It should be understood that students may not request deferral of their matriculation into the Master's degree program. If students would like to delay their graduate studies after earning the undergraduate degree, they may apply for admission to the traditional master's degree program. Any application of graduate credit earned while in the undergraduate program is subject to the policies of the graduate degree granting school.

## Learning Outcomes

- Demonstrate a high level of proficiency in making informed and strategic decisions, applying quantitative analysis, and implementing project management strategies to effectively impact organizational goals. [Information Technology]
- Demonstrate knowledge of legal and ethical considerations in information technology and apply technical and ethical solutions. [Information Technology]
- Apply foundational knowledge of IT systems, computer networking, and security, including cloud computing concepts, TCP/IP model, packet-based networking, wireless networking, and cybersecurity principles. [Information Technology]
- Organize data in ways to emphasize relationships to elicit information from a database that allows data to be mined, visualized and graphically display via web interfaces. [Information Technology]
- Develop programs using fundamental programming constructs, data structures, and algorithms, while demonstrating the ability to choose appropriate solutions and justify their selections. [Information Technology]
- Apply object-oriented principles (abstraction, delegation, inheritance, and polymorphism) and design patterns, and demonstrate proficiency in programming, testing, and debugging using a mainstream object-oriented language. [Information Technology]
- Evaluate key policies, processes, and ethical decision making involved in the oversight of information technology within an organization in real world case studies. [Information Technology Leadership and Strategy]
- Apply project management principles to ensure successful implementation of core IT functions, such as network management, system administration, infrastructure integration, and mobile computing in coursework. [Information Technology Leadership and Strategy]
- Create business plans that incorporate IT strategies, employing creativity, innovation, and strategic thinking to identify opportunities, address challenges, build strong relationships, and drive organizational success. [Information Technology Leadership and Strategy]
- Analyze key performance indicators (KPIs) to measure the impact of IT management on organizational performance in written assignments and case studies. [Information Technology Leadership and Strategy]