MIT
Master of Information Technology
School of Computer Sciences and Technology
Master Degree Program

MASTER OF INFORMATION TECHNOLOGY (MIT) DEGREE
(30 Graduate Level Semester Credit Hours – Estimated Completion Time 20 months)

PROGRAM DESCRIPTION

The Master of Information Technology at Atlantis University is an intensive graduate degree program designed to challenge graduates to be innovators and become top performers in this new millennium of technology. Our degree program aligns with what the global I.T. industry seeks to fuel our digital age. Students learn and prepare themselves for careers in technical or managerial sectors in Cloud Computing, Computer Science, Big Data Analytics, Network/Systems Engineering, Mobile Web Development, IoT Research, etc. Students will have the ability and confidence to put their skills to the test by working with professors in real world scenarios with corporations at internships, hands-on class projects, and peer review. Our program is supplemented by technical and managerial workshops on a bi-weekly base that focus on the latest technological trends. The Masters of Information Technology at Atlantis University brings tremendous value to graduates as AU’s support and curriculum is second to none!

PROGRAM OBJECTIVE

Upon completion of the Atlantis University Master of Information Technology degree program, students will be prepared and have the hands on I.T. experience to operate efficiently and effectively utilizing industry best practices. Through our unique mentored learning approach and challenging hands on real world labs created by real world industry experts, students graduate with in demand skills that major global corporations are desperately seeking. Our modern curriculum covers critical subjects such as but not limited to cyber security, data analytics, cloud computing, big data, data center design, IoT, and IT governance, and modern web and mobile programming.

UPON GRADUATION, STUDENTS WILL BE ABLE TO:

★ Compete at a global scale for high paying stable I.T. careers
★ Be able to confidently design, deploy, and maintain critical I.T. infrastructures in the cloud or onsite
★ Be able to effectively and efficiently work with next generation technologies such as cyber security UTM’s, Cisco Nexus & UCS platforms, Amazon Web Services cloud appliances, Software Defined WAN’s, and so forth.
★ Have the confidence to lead technical projects that align with business initiative
★ Bring technological innovation to the enterprise and be a major contributor to society
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SUGGESTED PROGRAM BREAKDOWN BY COURSE

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<td>E-Commerce Technology &amp; Management</td>
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<td>Module II</td>
<td>MIT 522</td>
<td>Data Analytics in Big Data</td>
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<td>Module III</td>
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<td>Module IV</td>
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<td>Information Security and Penetration Testing</td>
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<td>Module V</td>
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<td>Module VI</td>
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<td>Software Development and Validation</td>
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<td>Module VII</td>
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<td>ITIL Service Oriented Architecture</td>
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<td>Module VIII</td>
<td>MIT 622</td>
<td>IT Automation with Python</td>
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<td>Module IX</td>
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<td>Module X</td>
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MIT students are normally scheduled for one course at a time. Students are required to successfully complete 30 graduate credit hours.
### MIT 501 E-Commerce Technology and Management

Technology is perhaps the greatest agent for change in the modern world. The global economy now heavily relies on ecommerce. But what does it really take to plan, build, deploy, and maintain a digital commerce infrastructure. This course will provide students with an exciting opportunity to learn through CIW best practices on planning, deploying, an an e-commerce site ready for profit.

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- The global economy now heavily relies on ecommerce.
- What does it really take to plan, build, deploy, and maintain a digital commerce infrastructure.
- This course will provide students with an exciting opportunity to learn through CIW best practices.
- Planning, deploying, an e-commerce site ready for profit.

**Credits:** 3

### MIT 522 Data Analytics in Big Data

This course provides a comprehensive understanding to the world of big data and analytics. Big data is now a reality, the volume, variety and velocity of data coming into the enterprise continues at an unprecedented level. Data analytics is the process of examining data to uncover hidden patterns, unknown correlations and other useful information that can be used to make better decisions. In this course, students will learn how to connect and visualize complex data by utilizing techniques such as aggregators, timeseries, dashboard customization, storytelling, metadata grids, dual axis charts, etc. Basic statistical methods will be used such as regression, central tendency, and dispersion.

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### MIT 534 IT Governance and Compliance

This course lets the student comprehend the criticality and urgency of corporate compliance and governance. I.T. governance and compliance requirements of an enterprise can widely vary. For large corporations and enterprises, IT governance is a framework – a significant set of policies, procedures, and controls that is applied to technology across an organization to enforce corporate standards and assure regulatory compliance and mandates. Students will leave this course with the “know how” knowledge of working and maintaining an I.T. division that is under strict regulatory compliance such as Sarbanes-Oxley, HIPAA, Gramm-Leach-Bliley, PCI, FISMA, and SSAE 16.

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**Credits:** 3

### MIT 548 Information Security and Penetration Testing

Information Security is at the center stage of the world. This course provides an exciting opportunity to study the psychology and technical tools/techniques that hackers utilize to infiltrate networks. The goal of this course is to know how to identify and document real world legal and ethical penetration test for an organization. We will look at the full life cycle of a corporate sponsored penetration test. You will work with peer reviewed case studies and hands on tools such as Nmap, Nessus, Wireshark, Cain & Abel, Hydra, Pineapple, etc. This course ends with a final student report that a corporation can use as a guiding factor to immediately mitigate known vulnerabilities.

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**Credits:** 3
This course challenges the student to think outside the box by building applications in C# with Microsoft Visual Studios 2015. C# is a powerful, general purpose programming language that allows one to build desktop, Windows store, windows phone, and web applications. C# provides all the tools needed to build a variety of applications such as databases, point of sale systems, 2/3D games, hardware control systems, and much more. This course is hands on project base. You will learning and programming subjects like controls, events, standards and customized dialogs, debugging, enumeration and structures, arrays and collections, fine tuning classes, overloading operators. You will also be familiar with algorithms and how critical they are in the development lifecycle.

Software development has tremendously evolved over the years thanks to modern IDEs. A key area of software development is the testing and validation stages that many developers still struggle with. This course covers the ins and outs of testing and validating development projects as its done by efficient running organizations. Students will work on building a product and answer questions such as “Does this project complies with the stated requirements and performs functions for which it was intended”. Students will utilize several tools for analysis of code and project.

This course provides an in depth study and hands on practice of an industry best practice designed to standardize the selection, planning, delivery and support of IT services to enterprises. In a global competitive market, it is critical to comprehend how I.T. can be the value and business driver towards efficiency and predictable service levels. ITIL is a collection of five core (SS, SD, ST, SO, CSI) publications that have been designed and implemented in the United Kingdom’s technology infrastructure. Ever since, it has been adopted and diligently practiced in global fortune corporations.

This course lays down the foundations of I.T. automation through the programming of Python language. Software is at the core of so many tools we use today. Nearly everyone uses social networks to communicate, many use internet connected devices to get the job done. The main objective of this course is to learn how to be efficient in the workplace by automating operational repetitive tasks in the enterprise. Individuals will learn modern object oriented programming and scripting techniques through Python. Python is now a sought after skill in the industry worldwide. This class works upon building weekly projects that the student builds. By the end of the course, students will have the experience of automating simple to intermediate programs in an enterprise.
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<td>MIT 700</td>
<td>Final Research Project</td>
<td>As a graduate student, a certain level of expertise is expected. In the course, you will learn how to conduct graduate level research on a faculty approved subject of interest. Different research methodology. After the completion of this research course, students will be ready to transition into the Capstone Final Project.</td>
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<td>MIT 710</td>
<td>Capstone Field Project</td>
<td>The Capstone Field Project provides students with the opportunity to complete their academic curriculum through the real life application of best practices learned through courses taken in the program. The main objective of the Capstone Field Project is to strengthen the students’ capacities to explore, conceptualize, analyze, explicate, interpret, and provide suggested solutions to companies and organizations facing critical computer engineering challenges. In this course, learners integrate the foundational knowledge and skills gained during the Master of Science in Computer Engineering program in an application-based engineering project. Learners propose, plan, and implement a major project that allows them to demonstrate competencies in ethics, leadership and all computer engineering topics covered throughout the program. Their final projects allow learners to demonstrate their overall ability to identify and recommend evidence based solutions to Computer Engineering challenges and opportunities.</td>
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