INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
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Master of Business Administration Programme in Advanced Information Technology (MBAP-AIT)

An autonomous full-time Masters Programme of IIIT

The Indian software industry has emerged as the fastest growing sector of the Indian economy, growing at a CAGR of 50% over the last decade. With a turnover of US $ 6.3 billion and exports of US $ 6.2 billion, the sector has shown consistent growth. Today one in four Fortune 1000 companies outsource their software requirements to India. IT-enabled Services (ITeS) has emerged as a key IT growth driver with about 10.6% of the total IT software and service industry revenues. On-shore services have also increased to about 56% of total IT services, facilitated by improved infrastructure and ambitious entrepreneurship.

The average R&D spending for Indian IT players has gone up from 2.6% to about 4% and is forecast to grow to 10% of revenues in the near future. This in contrast to the industry average R&D spend of 0.8% brings into focus the strides India is taking to move up the value chain in IT from being a body shop to a leading core IT development source. Thus professionals have a unique opportunity in IT and ITeS that can be exploited with appropriate training.

This MBAP-AIT course proposes to provide theoretical inputs in Business Administration and IT along with a sound practical knowledge of IT. The course content therefore becomes a unique combination of IT, management and entrepreneurship.

THE PROGRAMME

This five trimester full-time course is designed to equip students to accept responsibilities in:

- Software development
- Project management in core IT and ITeS
- Entrepreneurship and promotion of IT services
- For enhanced positions in their existing service, should the student come with experience from business enterprises

DISTINCTIVE FEATURES

IT relevant forward looking management courses to support IT learnings and application in real-life business

- Intensive laboratory sessions to gain experience of industry applications
- Exposure to wide gamut of technologies for e-Business, IT-enabled services and enterprise application technologies:
  - ERP, SCM, CRM, exchanges - B2B, B2C, etc.
  - Web technologies: J2EE/EJB/ASP/XML
  - e-Business platforms
- Management project work to gain experience in real business
- IT project to develop skills for live systems, infrastructure operations and management

ELIGIBILITY

- Graduates with any Bachelor's Degree of minimum three years' duration with Mathematics at 10+2 school level
- Students appearing in their final year of graduation may also apply
- Sound academic background
- See insert on "Selection and Admission Procedure" for more details

COURSE COMMENCEMENT

The course will commence in June / September / January

EVALUATION AND CERTIFICATION

- Periodic evaluation and performance improvement programme
- Module-wise credits
- Balanced assessment based on internals, examination and project
- Detailed transcripts along with certificate

PLACEMENT ASSISTANCE

- Career guidance at the institute
- Pre-placement facilitation / development
- Active liaison with companies in Infotech Park
- Campus interviews by leading industries in India

CURRICULUM

COMMON FOUNDATION PROGRAM

- **Self-Management and Leadership**

  This module, helps the students to understand one's self and to develop leadership qualities. The student will be taught Yoga of well-being, meditation techniques, the Art of Living and self management and leadership.

- **Foreign Language**

  This module is designed for students aspiring to learn an important foreign language for business communication to avail of global career opportunities.

  English language course will be a pre-requisite for foreign students.

- **ICT Business Management**

  The course provides students with basic management skills for performing in Information & Communication Technology and a

high emphasis on computer usage. The programme includes foundation courses in English, keyboarding and oral communication, plus introductory courses in office productivity and accounting.

The topics include applying principles of effective communications, time management, interpersonal skills, project management, product management, innovation management and finance management.

TRIMESTER I

COMMON CORE PROGRAMME

- **Computer Architecture**

  This module focuses on the study of the hardware structure of computer systems and subsystems. Topics include: processor architecture, parallelism and pipelining, cache and memory organisation, I/O controllers and interconnection structures.

- **Theory of Operating Systems**

  This module covers operating system design concepts with examples from the Linux and Windows operating systems. The topics covered (tentatively) include operating system structures, process and thread management, process synchronisation and communication, memory management, virtual memory, file system, I/O subsystem and device management, communication, protection and security.

- **Database Technologies**

  This module focuses on the theory of database engineering. The module includes topics like file processing, some introductory data structures, the differences between file processing and database processing, fundamental concepts of the relational model, normalisation of data, database integrity issues, database design, SQL and an overview of the functions of a database management system.

- **Data Communication and Networking**

  In this module, the emphasis will be on developing an understanding of the underlying principles of data communications and networking. The student will learn the concepts and terminology of data communications and networking. It covers topics on communication models, network protocols, standards, LANs, WANs, the internet, intranet and networking applications.

MANAGEMENT COMPONENT

- **General Management**

  This primary module is aimed at bringing students from various fields to a common ground, from where they can then be taken to higher levels of management skills. The main topics covered include principles and practices of management : introduction to management, planning, organising, staffing, directing, co-ordinating, recent trends in management will be covered in this module.

- **Basic Accounting**

  This module is specially designed for students with no prior exposure to accounting, in order to enable them to understand cash flow, accounting statements, printed accounts of companies, construction of income statement and formulation of balance sheet from accounting entries. This forms the foundation for future finance topics, portfolio management and risk analysis.

- **Marketing Management**

  This subject is favored over and above all other specialisations in the field of management. It forms a wide umbrella for a plethora of subjects. This initial module is aimed at introducing this dynamic subject to the students and covers core marketing concepts, marketing mix, market-oriented strategic planning, segmentation, channel and distribution management and evaluation of channel performance.

- **Business Environment I**

  Businesses are influenced by numerous factors; political, economic, socio-cultural and technological; surrounding the organisation externally, as also the structure of the organisation, its culture and systems. Hence, a national and international backdrop (PEST analysis) and strategy forms the core of this module.

- **Business Communications**

  Business is all about interactions; which in turn depend greatly upon the ability to communicate and convey one's opinion. Deals are made or broken based on one's communication skills. More importantly, in today's fast changing world, effective communication is the need of the hour. This module equips the students with skills in report writing, presentation skills as well as training in conduct of meetings and interpersonal communication.

TRIMESTER II

ADVANCED TECHNOLOGY AND MANAGEMENT PROGRAMME I

COMMON IT COMPONENT

- **Data Structures and Algorithms**

  This module focuses on different data structures and their applications in computer programming. The data structures covered here are array, stack, queue, linked lists, binary tree and various sorting and searching algorithms.

- **Object-oriented Analysis and Design using UML**

  This module focuses on the major techniques of the Unified Modeling Language (UML) object-oriented analysis and design notation and how these techniques can be applied to improve quality of productivity during the analysis and design of application. The topics to be covered include object models, analyzing the system requirements, modeling concepts provided by UML, analysis and documentation of software designs using the unified process, identification of use cases, behavioral designs, design patterns to refine analysis and design models, implementation, testable and adaptable designs.

- **Web Engineering**

  This module exposes students to the various principles of creating high quality web applications. The topics covered include web application development process, web engineering process and design, testing and deployment phases in the web application development life-cycle and the S/W tools required for web application.

MANAGEMENT COMPONENT

- **Organisational Behaviour**

  Understanding the mind-set of people, their interactions within and outside the organisation, becomes vital for the smooth functioning of the organisation. Moreover, this also forms the basis for motivating employees, making them realise the importance of group dynamics and effective leadership styles. It will also teach them to appreciate the nuances that exist in different cultures the world-over and its effect on organisations.

- **Managerial Economics**

  This module is designed to give the students knowledge of the nature and scope of macroeconomics, microeconomics, demand analysis, production functions and break-even analysis. These

enable the students to understand how the economy and economics affect business decisions.

- **Market Research I**

  Products have to cater / create needs in the minds of the customers. Often, there exists only one chance to do this. Since it is very expensive to reposition commodities, research is an ongoing process used to decide on products, monitor growth, compare predictions and plan for the future. This module covers areas of introduction and scope of market surveys, demand estimation, feasibility reports, segmentation and positioning of products.

- **Management Accounting**

  As stated, once basic accounting has covered the groundwork, financial accounting takes over. In a way, the two are sequentially related. Management accounting covers topics like ratio analysis and elements of costing.

- **Statistical Techniques & OT**

  The business environment has to be analyzed, studied closely and examined minutely, for effective decision-making. This requires basic analytical skills and understanding of statistical techniques, study of central tendency and probability, which also find use in market research. Moreover, projects involve the use of multiple, scarce resources in an erratic fashion. In order to ensure their efficient use, quantitative techniques, job sequencing, assignment models, transportation, linear programming, PERT and CPM are used.

- **TQM / ISO/CMM**

  The increased focus on TQM, concepts of cost of quality, quality circles and kaizen, types of ISO and CMM standards, certification system, system-documentation, its scope and importance are covered in this module.

- **Business Environment II**

  Adding on to foundation laid in the first trimester, this module is targeted at enabling the students to independently appreciate national and international topics and make presentations, as well as present book reviews. This not only broadens the horizon of knowledge, but also adds to the confidence level of the student through presentations.

SPECIALISATION IT COMPONENTS

- **Web Application Development Technologies**

  This module provides the student with thorough knowledge of web architecture, role of application servers and database management systems and HTML application development. The topics covered include HTML programming, Java script, VB script, ASP, JSP, ADO, VB, e-Commerce communication standards, 3-tier architecture and database connectivity.

- **XML Technology and Application**

  This module introduces XML (its structure and its applications in business), the related technologies and its use for e-Business application. The topics covered include DTD, schema, messaging, client and server side XML, XSL, SOAP and XML for B2B.

- **Web Server Technology**

  This module introduces the major web server software available today, as well as the hardware required. The topic includes discussion on webservers like Apache, IIS, websphere and writing applications using CGI, and PERL, server configuration, server administration and security PHP.

- **Wireless Application Protocol (WAP)**

  This module provides a general overview of WAP and its use. The module teaches the different protocol layers of the WAP specification and implementation. The module covers the wide range of applications and future possibilities associated with WAP. The topic includes wireless communication basics, protocols, WML and security.

TRIMESTER III

ADVANCED TECHNOLOGY AND MANAGEMENT PROGRAMME II

COMMON IT COMPONENT

- **Enterprise Application Development Technologies**

  This module introduces the opportunities and challenges of creating enterprise-level applications. Students will study how creating such flexible and scalable applications can be challenging and they will learn how to address these challenges by employing appropriate design, tools and technology. The topics covered include COM, DCOM, CORBA, Java programming using J2EE, EJB, transaction services, application services and protocols like SOAP.

- **Advanced Database Management**

  The focus of this module is the advanced concepts of database management technology. It discusses concepts like transaction management, optimisation and distributed database.

- **Database Application Development**

  This module focuses on the application development features of the databases. Programming features of a database like PL/SQL, PSP, features for web application, Java-stored procedures and SQLJ are covered here.

MANAGEMENT COMPONENT

- **Business Law / Cyber Law**

  Running a business ethically and under the preview set up by the government is vital. This module is designed to introduce topics like Contract Act, NI Act, patents, designs, trademark, basics of Companies Act, cyber crime and cyber security.

- **Customer Relationship Management**

  This topic introduces the concept of customer lifetime value, relationships, etc. Strategies for customer retention and metrics of customer satisfaction and other measurable components are covered in this module.

- **Knowledge Management**

  The world has evolved into a knowledge-based economy where personnel are being viewed as knowledge workers. Companies are realizing the need for KM. Bearing this in mind, this module focuses on introduction to learning, knowledge creation dynamics, knowledge processes and their implementation which form the basics of KM.

- **Human Resource Management**

  Human capital forms the core of any and every organization. Hence, this module is designed to help the students develop an understanding of functions of personnel managers, role of industrial relations, personnel information systems disciplinary process and administration in India.

- **Software Project Management**

  Project scheduling techniques, preparation of software plan, quality factors, testing problems, planning for IT manpower, estimation techniques, distributed multi-site development management, project tracking and risk analysis are covered in this module.

- **Entrepreneurship**

  The only sure way to survive in the current economy is to become independent and play the role of a job-provider. Appreciating this fact, this module is structured to teach the students to acquire the knowledge they need to start-up and run their own business. Such knowledge will also help in the business development wings of IT companies.

SPECIALISATION IT COMPONENTS

- **Database Administration**

  This module aims to expose the various administration issues of a database management system. The issues such as backup and recovery, performance tuning, security of a database and the general administration of a database will be covered here.

- **Data Warehousing**

  The main objective of this module is to unfold the concepts of data warehouse, OLAP, data mining and the design process. Data warehousing, OLAP, data mining are the primary means by which businesses can gain competitive advantage through analysis and proactive use of the information stored in their computerised systems. The data warehouse design process is evolutionary in nature, it requires better understanding of the design architectures and therefore the module has been introduced in the third term of the course. Topics covered include data marts, data mining, data transformation services and OLAP service architecture.

- **.Net Enterprise Servers Frameworks**

  This module focuses on the techniques to develop web services with .Net framework. The topics to be covered include .Net framework; ASP .NET web forms, web services, windows forms and ADO .Net, developing applications for .Net environment.

- **IBM Websphere**

  This module is a general exposure to the IBM Websphere platform including designing and application development in the integrated e-Business environment advanced by IBM.

- **Enterprise Application Integration**

  This module introduces students to the opportunities and challenges of creating such flexible and scalable applications that can be challenging by employing appropriate design, tools and technology.

TRIMESTER IV

ADVANCED MANAGEMENT PROGRAMME

- **OD & Business Process Re-engineering**

  This module delves into the types of organisation, OD programs, quality of work life, organisation of change, business process re-engineering and the role of IT in improving business processes.

- **Management Control Systems**

  This module focuses on the control aspect of management, information for decision-making, source and uses of funds, aspects of performance reporting, control action, profit centers, investment centers and transfer pricing are some of the concepts covered under this module.

- **Production Systems**

  This module helps students develop concepts of various types of production systems. This serves to give a foundation for basing the studies of enterprise solutions of IT in the programme.

- **Business Environment III**

  As in the earlier trimester, this module is also tailored to hone the students' presentation skills by encouraging them to research on national and international topics and simultaneously present book reviews.

- **Supply Chain Management (SCM)**

  Another vital branch of management is SCM with its focus on distribution, logistics supply chain management, channel management, channel performance evaluation, supplier and distributor development, problem solving, SWOT analysis, IT-enabled SCM, SCM and retail services, financial services and telecom services.

- **Industrial Relations and Labour Laws**

  The Indian worker fraternity is large in most companies. They work under extremely different conditions as compared to their foreign counterparts. This requires the students to understand the concepts and scope of IR machinery in India, comparative study with other countries, laws relating to trade unions, strikes, lock-outs, Social Security ESI, PF Act, Payment of Bonus Act and Minimum Wages Act.

TRIMESTER V

- **Seminar and Project**

  The student is expected to undertake projects either as a research activity or live with the industry. The projects are the culmination of the student's learning in the institute and are expected to be of high standards as will find practical usage.

  Ideally, a project with management bias and another with an IT application theme are expected. However, latitude to incorporate a combination of IT and management aspects into a single larger IT project or multiple projects could also be considered, subject to approval of the student's project/research guide.

  The student shall have to make efforts towards locating project/research opportunities in the industry. The institute shall provide all guidance and facilities for the student to locate project/research opportunities in the industry.

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Master of Business Administration Programme in Advanced Information Technology (MBAP-AIT)

An autonomous full-time Master's Programme (20 months)

The Indian software industry has emerged as the fastest growing sector of the Indian economy, growing at a CAGR of 50% over the last decade. With a turnover of US $ 8.3 billion and exports of US $ 6.2 billion, the sector has shown consistent growth. Today, one in four Fortune 1000 companies outsource their software requirements to India. IT-enabled Services (ITeS) has emerged as a key IT growth driver with about 10.6% of the total IT software and service industry revenues. On-shore services have also increased to about 56% of total IT services, facilitated by improved infrastructure and ambitious entrepreneurship.

The average R&D spend for Indian IT players has gone up from 2.6% to about 4% and is forecast to grow to 10% of revenues in the near future. This in contrast to the industry average R&D spend of 0.8% brings into focus the strides India is taking to move up the value chain in IT from being a body shop to a leading core IT development source. Thus professionals have a unique opportunity in IT and ITeS that can be exploited with appropriate training.

This MBAP-AIT course proposes to provide theoretical inputs in Business Administration and IT along with sound practical knowledge of IT. Students have the option of taking up additional modules in GAAP Accounting & IT Security and Systems Audit in association with PricewaterhouseCoopers Pvt. Ltd. and Insurance Management in association with Bajaj Allianz. The course content therefore becomes a unique combination of IT, management and entrepreneurship.

THE PROGRAMME

This five trimester full-time course is designed to equip students to accept responsibilities in:

- Software development
- Project management in core IT and ITeS
- Entrepreneurship and promotion of IT services
- For enhanced positions in their existing service, should the student come with experience from business enterprises

DISTINCTIVE FEATURES

IT relevant forward-looking management courses to support IT learnings and application in real-life business

- Intensive laboratory sessions to gain experience of industry applications
- Exposure to a wide gamut of technologies for e-Business, IT-enabled services and enterprise application technologies:
  - ERP, SCM, CRM, exchanges - B2B, B2C, etc.
  - Web technologies: JSP/EJB/ASP/XML
  - e-Business platforms
- Management project work to gain experience in business
- IT project to develop skills for live systems, infrastructure operations and management

ELIGIBILITY

- Graduates with any Bachelor's Degree (with minimum 50% marks) of at least three years' duration with Mathematics at 10+2 school level and sound computing knowledge on C and C++ programming languages.
- Sound academic background
- See insert on "Selection and Admission Procedure" for more details

COURSE COMMENCEMENT

The course will commence in June / September / January

EVALUATION AND CERTIFICATION

- Periodic evaluation and performance improvement programme
- Module-wise credits
- Balanced assessment based on internals, examination and project
- Detailed transcripts along with certificate

PLACEMENT ASSISTANCE

- Career guidance at the institute
- Pre-placement facilitation / development
- Active liaison with companies in Infotech Park
- Campus interviews by leading industries in India

CURRICULUM

TRIMESTER I (4 months)

COMMON FOUNDATION PROGRAMME

- **CC 100: Self-Management and Leadership (2 CREDITS)**

  This module, helps each student to understand oneself and to develop leadership qualities. The student will be taught yoga of well-being, meditation techniques, self-management and leadership.

- **CC 101: Foreign Language (Level 1)**

  This module is designed for students aspiring to learn an important foreign language for business communication to avail of global career opportunities.

  An English language course will be a pre-requisite for foreign students who do not have proficiency in English.

- CC 102: ICT Business Management (3 CREDIT)

  This module provides students with basic management skills for performing in Information & Communication Technology with a high emphasis on computer usage. The programme includes foundation courses in English, keyboarding and oral communication, plus introductory courses in office productivity and accounting.

  The topics include applying principles of effective communications, time management, interpersonal skills, project management, product management, innovation management and finance management.

COMMON CORE PROGRAMME

- AST 502: Database Technologies (2 CREDITS)

  This module focuses on the theory of database engineering. The module includes topics like file processing, introductory data structures, the differences between file processing and database processing, fundamental concepts of the relational model, normalisation of data, database integrity issues, database design, SQL and an overview of the functions of a database management system.

- MBAP-AIT 513: Information Systems (2 CREDITS)

  This module focuses on the information needs of an organisation, management and other knowledge workers. Information systems assist managers in making intelligent decisions with the aid of information technology and other decision-making tools. In today's digital economy, information systems play a strategic role for an organisation to compete and survive.

MANAGEMENT COMPONENT

- MBAP-AIT 501: Basic Accounting (2 CREDITS)

  Business is all about interaction; which in turn depend greatly upon the ability to communicate and convey one's opinion. Deals are made or broken based on one's communication skills. More importantly, in today's fast changing world, effective communication is the need of the hour. As stated, once basic accounting has covered the groundwork, financial accounting takes over. In a way, the two are sequentially related. Management accounting covers topics like ratio analysis and elements of costing.

- MBAP-AIT 510: Business Environment (2 CREDITS)

  Businesses are influenced by numerous factors; political, economic, socio-cultural and technological; surrounding the organisation externally, as also the structure of the organisation, its culture and systems. Hence, a national and international backdrop (PEST analysis) and strategy forms the core of this module.

- MBAP-AIT 514: General Management (2 CREDITS)

  This primary module is aimed at bringing students from various fields to a common ground, from where they can then be taken to higher levels of management skills. The main topics covered include principles and practices of management: introduction to management, planning, organising, staffing, directing, co-ordinating, recent trends in management will be covered in this module.

- MBAP-AIT 602: Marketing Management I (3 CREDITS)

  This subject is favoured over and above all other specialisations in the field of management. It forms a wide umbrella for a plethora of subjects. This initial module is aimed at introducing this dynamic subject to the students and covers core marketing concepts, marketing mix, market-oriented strategic planning, segmentation, channel and distribution management and evaluation of channel performance.

- MBAP-AIT 614: Managerial Economics (3 CREDITS)

  This module is specially designed for students with no prior exposure to accounting, in order to enable them to understand cash flow, accounting statements, printed accounts of companies, construction of income-statement and formulation of balance sheet from accounting entries. This forms the foundation for future finance topics, portfolio management and risk analysis.

TRIMESTER II (4 months)

ADVANCED TECHNOLOGY AND MANAGEMENT PROGRAMME I

COMMON IT COMPONENT

- CC 103: Foreign Language (Level 2)

  This module is designed for students aspiring to learn an important foreign language for business communication to avail of global career opportunities.

  An English language course will be a pre-requisite for foreign students who do not have proficiency in English.

- NT 503: Data Communication and Networking (2 CREDITS)

  In this module, the emphasis will be on developing an understanding of the underlying principles of data communications and networking. The student will learn the basic concepts and terminology of data communications and networking. Topics include communication models, network protocols, standards, LANs, WANs, the internet, intranet and networking applications.

- AST 505 : Web Engineering & Web Application Development Technologies (2 CREDITS)

  This module exposes students to the various principles of creating high quality web applications. The topics covered include web application development process, web engineering process and design, testing and deployment phases in the web application development life-cycle and the S/W tools required for web application.

MANAGEMENT COMPONENT

- MBAP-AIT 515: Organisational Behaviour (2 CREDITS)

  Understanding the mind-set of people, their interaction within and outside the organisation, becomes vital for the smooth functioning of the organisation. Moreover, this also forms the basis for motivating employees, making them realise the importance of group dynamics and effective leadership styles. It will also teach them to appreciate the nuances that exist in different cultures the world-over and its effect on organisations.

- MBAP-AIT 606: Human Resource Management (3 CREDITS)

  Human capital forms the core of any and every organisation. Hence, this module is designed to help the students develop an understanding of functions of personnel managers, role of industrial relations, personnel information, systems disciplinary process and administration in India.

- MBAP-AIT 608: Entrepreneurship (3 CREDITS)

  The only sure way to survive in the current economy is to become independent and play the role of a job-provider. Appreciating this fact, this module is structured to teach the students to acquire the knowledge they need to start and run their own business. Such knowledge will also help in the business development wings of IT companies.

- MBAP-AIT 617: Marketing Management II (3 CREDITS)

  Products have to cater / create needs in the minds of the customers. Often, there exists only one chance to do this. Since it

is very expensive to reposition commodities, research is an ongoing process used to decide on products, monitor growth, compare predictions and plan for the future. This module covers areas of introduction and scope of market surveys, demand estimation, feasibility reports, segmentation and positioning of products.

- **MBAP-AIT 622: Business & Cost Accounting (3 CREDITS)**

  The module covers various methods of accounting which provides for the assembling and recording of all the elements of cost incurred to accomplish a purpose, to carry on an activity or operation, or to complete a unit of work or a specific job.

TRIMESTER III (4 months)

ADVANCED TECHNOLOGY AND MANAGEMENT PROGRAMME II

COMMON IT COMPONENT

- **CC 101: Foreign Language (Level 3)**

  This module is designed for students aspiring to learn an important foreign language for business communication to avail of global career opportunities.

  An English language course will be a pre-requisite for foreign students who do not have proficiency in English.

- **AST 609 : Advanced Web Engineering & Web Application Development Technologies (3 CREDITS)**

  This module introduces the advanced concepts of web architechture, JAVA, XML, J2EE and Web Server software. The topics covered include advanced features of web application development processes, web engineering processes and application deployment techniques.

- **AST 619: Software Engineering (3 CREDITS)**

  This course provides a comprehensive analysis of software engineering techniques and shows how they can be applied in practical software projects, all with an object-oriented approach. This course extensively covers software process technology, system integration, requirements management, software project management, verification and validation, risk analysis, pattern-based reuse, dependable systems development, distributed system engineering, and legacy systems.

- **MBAP-AIT 619: Enterprise Application (3 CREDITS)**

  This module aims to consolidate the knowledge on this particular business software for running every aspect of a company including managing orders, inventory, accounting, and logistics. Well known ERP software providers include BAAN, Oracle, PeopleSoft and SAP, collectively known to industry insiders as "BOPS". ERP software deployments are usually associated with very large companies such as those in the Fortune 500 list, but as competition drives technology forward, accounting and industry-specific business management software is entering the ERP market space.

MANAGEMENT COMPONENT

- **MBAP-AIT 502: Financial Management (2 CREDITS)**

  As stated, once basic accounting has covered the groundwork, financial accounting takes over. In a way, the two are sequentially related. Management accounting covers topics like ratio analysis and elements of costing.

- **MBAP-AIT 507: E-Business Management (2 CREDITS)**

  This module introduces the business process foundations and some of the opportunities and challenges that implementers of e-commerce tools will face and an overview of industry-specific applications of e-commerce solutions.

- **MBAP-AIT 603: Quality Management and Business Intelligence (3 CREDITS)**

  This module stresses on the increased focus on TQM, concepts regarding cost of quality, quality circles and kaizen, types of ISO and CMM standards, certification system, system-documentation, its scope along with its significance and importance.

- **MBAP-AIT 604: Comparative International Law and Cyber Law (3 CREDITS)**

  Running a business ethically and under the purview set up by the government is vital. This module is designed to introduce topics like Contract Act, NI Act, patents, designs, trademark, basics of Companies Act, cyber crime and cyber security.

TRIMESTER IV (4 months)

- **MBAP-AIT 800: Project/Seminar TERM (14 CREDITS)**

  The student is expected to undertake projects either as a research activity or live with the industry. Projects are the culmination of the student's learning in the institute and are expected to be of high standards and will find practical usage.

  Ideally, a project with management bias and another with an IT application theme are expected. However, latitude to incorporate a combination of IT and management aspects into a single larger IT project or multiple projects could also be considered, subject to approval of the student's project/research guide.

  The student shall have to make efforts towards locating project/research opportunities in the industry. The institute shall provide all guidance and facilities for the student to locate project/research opportunities in the industry.

  Students have the option to continue with the fifth trimester or conduct with the seminar and project at the end of the course.

TRIMESTER V (4 months)

SPECIALISATION IT COMPONENTS

- **MBAP-AIT 620: Content Management & Collaborative Systems (3 CREDITS)**

  This module focuses on the control aspect of management, information for decision-making, source and usage of funds, aspects of performance reporting, control action, profit centres, investment centres and transfer pricing are some of the concepts covered under this module.

- **AST 702: Data Warehousing and Business Intelligence using SAS (3 CREDITS)**

  The main objective of this module is to unfold the concepts of data warehouse, OLAP, data mining and the design process. The topics include datamart, datamining, ETL process structure, data transformation services and OLAP service architecture. The course also focuses on the use of SAS (one of the world's leading data warehousing software) and include topics such as SAS programming, SAS data sets, statistical analysis using ANOVA, regression, logistic regression, designing and creating data warehousing, quering and reporting using enterprise guide. The data warehouse design process is evolutionary in nature, it requires better understanding of the design architecture and therefore the module has been introduced in the last trimester.

MANAGEMENT COMPONENT

- **MBAP-AIT 600: Corporate Finance (3 CREDITS)**

  This course aims to consolidate and further enhance the students' understanding of financial management issues and concepts. Particular emphasis will be placed on the importance of the role of financial management decisions in the overall structure of the

firm, and its interaction with corporate strategy in an *internationally competitive environment.*

- **MBAP-AIT 613: Knowledge Management & CRM (3 CREDITS)**

  Companies operating in different sectors are now realizing the need for knowledge management. Bearing this in mind, this module focuses on introduction to learning, knowledge creation dynamics, knowledge processes and their implementation which form the basics of knowledge management. Further the CRM module introduces the concept of customer lifetime value and relationships. Here, we would also cover various strategies for customer retention alongwith metrics of customer satisfaction and other measurable components.

- **MBAP-AIT 701: Supply Chain Management (SCM) (3 CREDITS)**

  Another vital branch of management is SCM with its focus on distribution, logistics supply chain management, channel management, channel performance evaluation, supplier and distributor development, problem solving, SWOT analysis. *IT-enabled SCM, SCM and retail services, financial services and* telecom services.

- **MBAP-AIT 705: Information Systems Security, Audit and Control (3 CREDITS)**

  This course provides a comprehensive analysis on information systems security, policy, standard, risk management & business continuity planning, application security, communication security, information systems audit standard & practices, organization/ management, process, integrity/confidentiality/availability and development/acquisition/maintenance.

TOTAL COURSE CREDITS : 88

NOTE : Foreign language is an independent certificate programme, compulsory for all students.

Sept '05

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY
P-14 Pune Infotech Park, Hinjawadi, Pune 411 057, India. Tel : 91-20-22933441 Fax : 91-20-22934191 Email : info@isquareit.ac.in

Master of Business Administration Program in Advanced Information Technology (MBAP-AIT)

An autonomous full-time residential Master's Program (20 months)

"The real voyage of discovery consists not in seeking new lands, but in seeing with new eyes."
– Marcel Proust, the renowned 19th Century French Novelist

Information and Communication Technology has forayed into every facet of life including the way in which businesses are conducted throughout the world. Consequently, businesses have transformed themselves from the conventional models into technology-enabled models. Business administration has therefore become technology enabled.

Conventional business management education typically focuses on the basic areas of Production, Marketing, HR and Finance practices. With the advent of IT and the use of IT in business, the need for running enterprises from an IT perspective has emerged. Business managers of today are expected to run their businesses based on skills derived from IT and ITeS coupled with conventional norms of business enterprise.

Studies forecast that exports will grow to more than US$ 57 billion by 2008 in the IT Services and IT Enabled Services Industry. The industry in India today boasts of a turnover of US $ 20 billion, and will continue to grow consistently. Today, one in four Fortune 1000 companies outsource their software requirements to India. IT enabled Services (ITeS) has emerged as the key IT growth driver with 10.6% of the total IT software and service industry revenues. Services in the country have also increased to about 56% of the total IT services facilitated by improved infrastructure and ambitious entrepreneurship.

MBAP-AIT only at I²IT

With phenomenal growth in this sector, it is important to note that intellectual capital is the prime mover of this industry. Companies capable of sustaining and enabling this intellectual capital growth achieve great success. How do we churn out this intellectual capital to meet the growing and dynamic demands of the industry? It involves a comprehensive approach to three business skills sets that should be imbibed by budding business managers. They are :

(i) Information and Communication Technology Competence, which focuses of being fully aware of what technology the industry depends on and how to acquire its knowledge base

(ii) Domain Competence, that focuses on how to customize your acquired knowledge to suit the industry's varied needs and

(iii) Management Competence, which deals with the art and science of managing organizational resources.

THE PROGRAM

This five trimester, 20 months program is designed to equip students to accept responsibilities in:

- Elusiness Management empowered by advances in ICTs
- Managing ICT enterprises
- Project management in core IT , ITeS and Telecom
- Entrepreneurship in IT, ITeS and Telecom sectors
- Career advancement of professionals

Course structure :

- Successful completion requires 60 credits
- Electives can be chosen from any other stream such as Micro-electronics and VLSI, Embedded Systems, Networking and Telecom, Software Technologies and Bio-Technology
- To bridge the gap between theory and practice project work worth 12 credits should be completed in the fourth trimester
- The entire curriculum is distributed over six levels, which are aimed at transcending the students' level of understanding for corporate readiness. The levels are Basic, Foundation, Core, Advanced, Electives and Project, respectively.

DISTINCTIVE FEATURES

- Complete course curriculum designed to meet modern business management requirements
- Exposure to e-business technologies such as ERP, CRM, SCM and EAI
- Web technologies such as EJB, JSP, XML, ASP, .NET
- Hands-on experience through SAP, SAS and SPSS labs.
- Tandem Teaching methodology, integrating Management and IT - theory and practice with emphasis on case studies and simulation.

ELIGIBILITY

- Graduates with a Bachelor's Degree (with minimum 50% marks).
- Basic background in Information Technology.
- Refer insert on "Selection and Admission Procedure" for more details.

COURSE COMMENCEMENT

The course commences in January / June / September

EVALUATION AND CERTIFICATION

- Periodic evaluation and performance improvement program
- Balanced assessment based on internals, examination and project
- Detailed transcripts along with certificate

PLACEMENT ASSISTANCE

- Career guidance at the Institute
- Course-wise credits
- Pre-placement facilitation / development and campus interviews by leading industries
- Active interface with business enterprises

CURRICULUM

BASIC PROGRAM

- **Life Skills Development**

  This basic course prepares students for the rigours of the masters' level program and professional careers that will follow. The course is divided into 9 sections, which will be conducted throughout the program.

  The program stresses on: communication and presentation, leadership development, working in teams, time management, negotiation skills, stress management through yoga, multicultural and diversity management and offsite experiential learning. The ultimate objective of this course is to develop individuals with high Intelligence, Emotional and Spiritual Quotients (IQ, EQ and SQ).

- **Foreign Language (Level 1)**

  In order to equip students to take up global careers, a choice of a foreign language as a major subject is offered. Medium of instruction is English.

- **Bridge Courses**

  Keeping in mind the diverse of background of students, we offer a variety of courses to attain the requisite level of competency for further learning.

FOUNDATION PROGRAM

- **M-BE 500 CONTEMPORARY BUSINESS ENVIRONMENT (3 Credits)**
  - The course of contemporary business environment presents an overview of the current business environment, covering political, economic, technological, social and legal framework in which management professionals should perform.
  - The course is offered through story telling, self-study exercises, group discussions and presentations.

- **PRINCIPLES & PRACTICE OF MANAGEMENT (3 Credits)**
  - This course will present principles, techniques and concepts needed for managerial analyses and decision-making.
  - Functions emphasized include planning, organizing, staffing, directing, coordinating and controlling.

- **M-PML 500 PRODUCTION & OPERATIONS MANAGEMENT (3 Credits)**
  - The course is divided in three segments, Production, Materials and Logistics Management.
  - Apart from learning the basic concepts of production, materials and logistics in modern business, emphasis is given on the management of inventory, procurement, and vendor development. The course module also covers basics of Supply Chain Management (SCM), Materials Resource Planning (MRP), production planning, scheduling and optimization

- **M-HR 500 HUMAN RESOURCES MANAGEMENT (3 Credits)**
  - This course is an introduction to Human Resource Management (HRM) functions in an enterprise.
  - The course establishes the conceptual meaning of HRM, its relationship with Personnel Management and Human Resource Development and its relevance in the work environment.

- **M-F 500 FINANCIAL & MANAGEMENT ACCOUNTING (3 Credits)**
  - This course will introduce students to the concepts and principles as well as the use of internal accounting information to make sound business decisions.
  - The Financial Accounting module is specially designed for students with no prior exposure to accounting.
  - Management accounting focuses on the identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management for decision-making.

- **M-M 500 PRINCIPLES OF MARKETING (3 Credits)**
  - This course takes a practical, managerial approach to marketing.
  - Presents current and recent examples of real-world marketing problems and solutions to drive home the concepts and to bring marketing to life and also introduces the concepts of Marketing Research and Marketing Information Systems.
  - Focuses on the Four P's - Product, Price, Promotion and Place, and the Three C's - Customers, Competitors and Costs.

- **M-I 500 INFORMATION SYSTEMS FOR MANAGEMENT (3 Credits)**
  - The course provides an introduction to the principles of business information processing and the role of information systems in contemporary organizations.
  - Introduces concepts like Computer Architecture, Data Elements, Databases, RDBMS, Programming Languages, and Networking & Data Communications.

CORE PROGRAM

- **M-BE 600 MANAGERIAL ECONOMICS (3 Credits)**
  - This course has two modules namely Macroeconomic Analysis and Microeconomic Analysis.
  - Macroeconomic Analysis concentrates on issues such as e-wealth of nations, economic growth, the effects of international trade & currency movements, BoP, determination of employment, output, prices, wages, interest rates, National income, investment and international flows of goods, services and assets.
  - Microeconomic Analysis covers topics such as economic analysis and optimal decisions, consumer choice and the demand for products, production functions and cost curves, market structures, strategic interaction, pricing and non-price concepts.

- **M-HR 600 ORGANIZATIONAL MANAGEMENT (3 Credits)**
  - This course will enable students to develop rational management tools for working within an organization by understanding and analyzing management techniques, concepts of organization, and multi-dimensional skills that are useful for effective management.
  - Operational areas of HR functions such as recruitment & selection, Competence Analysis, Performance Appraisal, Compensation, Conflict Management, Grievance Handling and Negotiation will be covered.

- **M-F 600 FINANCIAL MANAGEMENT (3 Credits)**
  - This course focuses on the managerial activity of planning and controlling of the firm's financial resources.
  - The main topics covered in this subject are ratios, funds & cash flow analysis, cost of capital, capital budgeting, dividends, working capital, all leading to decisions on financing, investing, earnings and liquidity of a company.

- **M-M 600 MARKETING MANAGEMENT (3 Credits)**
  - Topics like advertising & sales promotion, direct selling and indirect selling through channels and distribution networks, online marketing.
  - This course will include topics like marketing of services as it has emerged as a major business opportunity in recent years.

- **M-I 600 MANAGEMENT SUPPORT SYSTEMS (3 Credits)**
  - Over the years, organizations have changed their information systems from dealing purely with data processing to strategic and decision support.
  - This course focuses on the different support systems such as Enterprise Collaboration Systems, Transaction Processing Systems, Decision Support Systems, and Management Reporting Systems.

- The course also deals with the emerging role of Artificial Intelligence Systems.

■ **M-I 610 ERP – END-USER PERSPECTIVE (3 Credits)**

- This course will introduce Enterprise Resource Planning Systems (ERP) and issues relating to the implementation of these systems from the business perspective.
- The ERP Systems covered include: Materials Management, Production, Sales and Distribution, Finance and Accounting, Human Resources and Project Management.
- Hands-on exposure is provided on industry standard ERP systems such as SAP under the academic license.

ADVANCED PROGRAM

■ **M-BE 700 QUANTITATIVE TECHNIQUES (3 Credits)**

- The course will be administered in two parts viz., statistics and modeling.
- Statistics seeks to summarize numerical data and then make deductions from it. The module also includes topics like elementary statistics, probability, hypothesis testing, correlation, regression and analysis of variance.
- Modeling entails the idea of building and running a model, usually computer-based, and examining the effects of change. The topics include demand forecasting, queuing theory, linear programming, PERT/CPM and discrete simulation.

■ **M-HR 700 STRATEGIC HRM & OB (3 Credits)**

- This course is intended to address how firms can manage human resources as a source of competitive advantage.
- This course exposes students to the intersection between Human Resource Management (HRM), organizational behaviour, learning and competitive strategy.
- The topics will highlight the relationship between Strategic HRM and business performance. They will lay stress on HR strategies that link people, performance and practices

■ **M-F 700 STRATEGIC FINANCIAL MANAGEMENT (3 Credits)**

The course of Strategic Financial Management (SFM) will cover creative project financing, business performance measurement and control systems, business process outsourcing, financial restructuring and strategic issues related to mergers and acquisitions.

■ **M-M 700 STRATEGIC MARKETING MANAGEMENT (3 Credits)**

- This course will focus on developing practical skills in the formulation and implementation of market-driven strategies for an organization.
- The course will include vision, mission of the organization, environmental analysis, industry & competitive analysis, market segmentation analysis & positioning, managing value-chain relationships, strategy formulation, implementation and control.
- Emphasis will be on case studies in the domestic and global arena.

ELECTIVES

Minimum, 15 students required to register per elective.

■ **M-HR 800 HRIS IN BUSINESS (3 Credits)**

- Topics that will be examined include the use of computers as tools to analyze and assist in human resource decision-making.
- More specifically, the course will focus on the structure and capabilities of a Human Resources Information System (HRIS); identification of Human Resource information needs; HRIS implementation process and HRIS support roles.
- The unique relationship between HR, HRIS, and corporate information systems will be covered here.
- Emphasis will be laid on the understanding of the range of HRIS Software popularly used.

■ **M-PML 800 EMERGING TECHNOLOGIES IN PRODUCTION (3 Credits)**

- This course will expose students to modern manufacturing systems principles.
- The main topics covered here would be Six Sigma, integrated manufacturing systems, specification, design, and implementation of such systems, process engineering, design for manufacturability, automated manufacturing, data communication, computer-aided process planning, and flexible manufacturing systems.

■ **M-F 800 FINANCIAL INFORMATION SYSTEMS (3 Credits)**

- The course will focus on the contemporary instruments of finance in the areas of risk management.
- Topics on hedging using derivatives, integrated risk management and value creation, the present and future trends of risk management.
- Use of software for various techniques of hedging will be highlighted.

■ **M-M 800 MARKETING TECHNOLOGY INTERFACE (3 Credits)**

- A case driven course that integrates materials covered in the marketing curriculum and relates them to the design and implementation of marketing strategy.
- Selected cases will emphasize the integration of technology into the marketing process.
- Students are expected to demonstrate competency in analytical and presentation skills.
- Additionally, students will be required to utilize contemporary hi-tech tools.

■ **M-I 800 ADVANCED INFORMATION SYSTEMS (3 Credits)**

- This course addresses the issues of building information systems leveraging Enterprise Application Integration (EAI) and Internet application integration.
- The course covers end-to-end enterprise-wide applications, development, multitier development, IS architectures, service oriented architecture, EAI, web-enabled business solutions, and emerging business models of ASP.

■ **M-I 810 INTERNATIONAL BUSINESS (3 Credits)**

- This course is seminar based.
- Students are expected to either explore foreign markets, or create a product idea for any market, or identify a technology and create a business plan to exploit market potential.

■ **M-E 820 ENTREPRENEURSHIP ADVENTURE (12 Credits)**

This course expects students to create a start-up on campus, based on technology or business innovation. Faculty will provide necessary guidance and industry experts will mentor the project. Venture capitalists will help formulate and decipher viable venture proposals.

■ **M-E 830 MANAGING FAMILY BUSINESS (12 Credits)**

- Those students with a background in family business may opt for this endeavour.
- During this endeavour students are expected to examine their current family business, apply ICT that they have learnt in the course, and then propose diversification of the existing business or new lines of business. Evaluation will be based on defense of the business proposal.

■ **M-E 840 BUSINESS CASE ANALYSIS/WRITING (12 Credits)**

This course will involve a complete study of a chosen outstanding business case or industry analysis by applying the principles, techniques and practices learnt during the course bringing out clearly why a particular business succeeded or failed.

The case must be acceptable for publication in a business journal.

- **M-M 850 MARKETING RESEARCH (3 Credits)**

  This course provides comprehensive understanding of Market Research procedure and introduces both quantitative and qualitative methods adopted to ensure marketplace success. Emphasis will be on developing a real life marketing research project.

- **M-E 860 INTERNATIONAL BUSINESS (3 Credits)**

  This course examines international company behaviour in a global environment with an emphasis on the business leader's role and functions. Students analyze the development and implementation of strategies conducive to success in international markets.

- **Electives in Technology Management (3 Credits)**

  Students interested in learning any specific technology may choose courses from the technology stream. Please refer to our MS program brochure for the listing of the courses. Students may choose any 800 level courses. Minimum number of students required for each elective to be offered is fifteen.

The Institute reserves the right to change / revise the course contents as per the prevailing market conditions and technological advances.