



**Undergraduate Program Name: Information Systems, BBA**  
Program Coordinator Contact Information: Dominic Thomas  
**Graduate Program Name: Information Systems, MSIS**  
Academic Program Director Contact Information: Tridib Bandyopadhyay

Course Pairs:

Double Owl Scholars will NOT take the following Information Systems, BBA courses:	In their place, Double Owl Scholars will take the following Information Systems, MSIS <sup>1</sup> courses:
IS 3060	IS 7060
IS 3280	IS 7080
IS 3220	IS 7100

NOTE: 8000 level IS courses were renumbered to 7000-level effective AY 2021-2022

## Possible Pathway of Study

Year 1 - Fall (14 credits)	Credits	Year 1 - Spring (16 credits)	Credits
ENGL 1101- Composition I [A1]	3	ENGL 1102- Composition II [A1]	3
MATH 1111 College Algebra or MATH 1113- Precalculus	3	Choose One: Arts & Culture of the World ART 1107 / DANC 1107 / MUSI 1107 / TPS 1107	3
ECON 1000- Contemporary Economic Issues [B1]	2	Choose One: Applied Mathematics STAT 1401 / MATH 1113 / MATH 1160 / MATH 1190 / MATH 2202	3
Choose One: Cultural Perspectives AADS 1102 / AMST 1102 / ASIA 1102 / COM 1100 / [FL] 1002** / GWST 1102 / LALS 1102 / PAX 1102 / PHIL 2200 / POLS 2401 / RELS 1102	3	POLS 1101- American Government [E1]	3
Choose One: Literature of the World ENGL 2110 / ENGL 2111 / ENGL 2112 / ENGL 2120 / ENGL 2121 / ENGL 2122 / ENGL 2130 / ENGL 2131 / ENGL 2132 / ENGL 2300	3	SCI 1101 – Science, Society, & Environment I	4
TOTAL	14	TOTAL	16
Year 2 - Fall (15 credits)	Credits	Year 2 - Spring (15 credits)	Credits
SCI 1102 – Science, Society, & the Environment II	3	US History – HIST 2111 or HIST 2112	3
World History– HIST 1100 or HIST 1112	3	Choose One: Social Sciences CRJU 1101 / GEOG 1101 / PSYC 1101 / SOCI 1101 / STS 1101 / ANTH 1102	3
ACCT 2101 - Principles of Accounting	3	ECON 2106 – Microeconomics	3
ACCT 2102 – Introduction to Managerial Accounting	3	ECON 2300 – Business Statistics	3
ECON 2105 – Macroeconomics	3	IS 2200 – Information Systems & Communication	3
TOTAL	15	BUSA 2150 – Discovering My Major & Career	0
TOTAL	15	TOTAL	15
Year 3 - Fall (16 credits)	Credits	Year 3 - Spring (15 credits)	Credits
BLAW 2200 – Legal and Ethical Environment of Business	3	MKTG 3100 – Principles of Marketing	3
ECON 3300 – Applied Statistical and Optimization Models	3	MGT 3100 – Management & Behavioral Science	3
IS 3100 Information Systems Management	3	IS 7060 – Information Systems Development and Implementation	3
IS 3020 - IS Application Development I	3	IS 3260 – Web Development I	3
IS 3040 – IT Infrastructure	3	FIN 3100 – Principles of Finance	3
BUSA 3150 – Developing My Career Essentials	0		
TOTAL:	15	TOTAL:	15
Year 4 - Fall (14 credits)	Credits	Year 4 - Spring (14 credits)	Credits
MGT 3200 - Operations Management	3	IS 7100 – Advanced IT Project Management	3

IS 7080 – Database Application Design and Implementation	3	Business Elective II	3
IS Elective II	3	Business Elective III	3
MGT 4199 – Strategic Management	3	IS Elective I	3
Business Elective I	3	IS 4880 – IS Capstone Course	3
BUSA 4150 – Driving my Success	0		
TOTAL:	15	TOTAL:	15

<b>Apply to Graduate Program</b>			
<b>Year 5 - Fall (9 credits)</b>	<b>Credits</b>	<b>Year 5 - Spring (9 credits)</b>	<b>Credits</b>
IS 7005 – Informatics	3	IS 7200 – Legal and Ethical Issues in Information Systems	3
IS 7310 – Governance, Risk Management, and Compliance	3	IS 7320 – Information Security Technologies	3
IS 7330 – Disaster Recovery / Business Contiguity Planning	3	IS 7935 – Business Intelligence – Traditional and Big Data Analytics	3
IS 7920 – IT Customer Relationship Management * Can be taken in the summer as well	3		
TOTAL:	12	TOTAL:	9

<p><b>MSIS</b></p> <p><b>IS 7060 – Information Systems Development and Implementation</b></p> <p><b>Course Description:</b> This course examines the Systems Development Life Cycle and the technologies used to implement high-quality information systems. A variety of modeling techniques will be used by students to articulate client requirements and convert them into implementable specifications. Prototyping and methodology engineering will be covered.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Understand the framework methodology of Systems Analysis and Design</li> <li>• Learn how to prepare UML-based models using techniques based in Object-Oriented design principles to reinforce the learning of the processes of requirements gathering and documentation, identify and interpret UML models</li> <li>• Acquire the ability to design systems using Object-oriented techniques to deliver quality system and program specifications.</li> <li>• Acquire the understanding of implementation, Testing, and Deployment of SAD initiatives. In addition, students will understand the process of reviewing project management techniques and issues as applied to the system design process, as well as the SA&amp;D implementation (construction &amp; installation) components.</li> </ul>	<p><b>BBA - IS</b></p> <p><b>IS 3060 – Systems Analysis and Design</b></p> <p><b>Course Description:</b> An introduction to the basic concepts underlying systems analysis and design, and the application of those techniques in the development of business information systems. The student will learn how to develop information systems based on user requirements and specifications. The course will expose the students to UML and other graphic modeling processes.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• IS support information of management in today’s fast changing environment</li> <li>• Learn, Understand and Be Able to describe the fundamentals of IS Behavioral and structural modeling, structure and function of systems and networks</li> <li>• Understand the relationships between software and hardware, systems and Networks</li> <li>• Understand and be Able to describe the fundamentals of systems development such as SDLC, Agile and Extreme or Rapid development methodologies</li> <li>• Understand and be able to describe the basic concepts of Project Management and its tools such as MS Project and Gantt Charts</li> <li>• Learn, Understand and be able to Describe professional, ethical and global issues relating to IS via case studies</li> <li>• Understand security and privacy issues encountered by IS professionals</li> <li>• Learn, and Understand emerging trends and technologies</li> </ul>
<p><b>IS 7080 – Database Application Design and Implementation</b></p> <p><b>Course Description:</b> This course examines contemporary strategies for the design and implementation of applications supported by back-end database systems. Topics include data administration, data mining, user-interface design, reporting, data integrity issues, and distributed databases. Relational and object-oriented technologies are covered.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Understand the role of data and information management in organizations, how that data is most retained electronically and explain what a DBMS does</li> <li>• Employ Data Modeling using a relational approach including E-R diagrams and Normalization to capture information</li> <li>• Construct working SQL statements for simple and intermediate queries</li> <li>• Use an IDE such as MySQL workbench</li> </ul>	<p><b>IS 3280 – Data Management</b></p> <p><b>Course Description:</b> This course introduces the student to the properties, logic, design, implementation, and access to business databases. Particular emphasis is placed on the relational approach to database management and processing, which focuses more on the logical nature of a database than its physical characteristics. Relational database programming assignments are drawn from the fields of business and government.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Describe and discuss the role of data and information in society</li> <li>• Model data represented as an Entity-Relationship Diagram,</li> <li>• Transform the entity-relationship model into a logical design</li> <li>• Compose working SQL statements for simple and intermediate queries</li> <li>• Build and modify a database schema using SQL</li> <li>• Define locking techniques used to control the</li> </ul>

<ul style="list-style-type: none"> <li>• Use PHP to extract data and present data.</li> <li>• Convert RDBMS to HDBMS (XML).</li> </ul>	<p>consequences of concurrent data access</p> <ul style="list-style-type: none"> <li>• Name and describe common database security issues and identify ways to address potential database security vulnerabilities</li> <li>• State ethical guidelines for data collection for database projects.</li> <li>• Using an IDE such as Access, construct a set of simple input forms and output reports</li> </ul>
<p><b>IS 7100 – Advanced IT Project Management</b>  <b>Course Description:</b> Implementation and reflection of project management principles for Information Systems projects. Students will analyze case studies and readings that address project risk management, project portfolio management, project management for global teams, integrated project teams, and virtual project teams. Project management software will be used to facilitate team projects and project reporting.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Apply process-based and agile project management.</li> <li>• Evaluate project risk management</li> <li>• Discuss project management portfolios and programs</li> <li>• Describe how to achieve success with multinational and virtual project teams</li> <li>• Demonstrate project management process groups</li> <li>• Explore how to select a project management methodology from the adaptive (agile) and predictive continuum.</li> </ul>	<p><b>IS 3220 – Global IS Project Management</b>  <b>Course Description:</b> In this course, students will be exposed to the basic principles of Global Project Management, effective teamwork and collaboration. It will prepare students to understand key issues in global project management such as project initiation, planning, scheduling, budgeting, risk analysis, quality management and communicating and collaborating across political and cultural boundaries. Tools such as Microsoft Project will be used to develop and track Information Systems projects.</p> <p><b>Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• IS support information of management in today’s fast changing environment</li> <li>• Learn, Understand and Be Able to describe the fundamentals of IS Behavioral and structural modeling, structure and function of systems and networks</li> <li>• Understand the relationships between software and hardware, systems and Networks</li> <li>• Understand and be Able to describe the fundamentals of systems development such as SDLC, Agile and Extreme or Rapid development methodologies</li> <li>• Understand and be able to describe the basic concepts of Project Management and its tools such as MS Project and Gantt Charts</li> <li>• Learn, Understand and be able to Describe professional, ethical and global issues relating to IS via case studies</li> <li>• Understand security and privacy issues encountered by IS professionals</li> <li>• Learn, and Understand emerging trends and technologies</li> </ul>