

**INFORMATION SYSTEMS TECHNOLOGIES
DEPARTMENTAL COURSE LISTING**

Course Prefix and Number	Course Title	Pre-requisite(s)	Co-requisite(s)	Program	Helpful Advising Information
CIS 110	Introduction to Computers	None	None	Computer Programming and Applications	This course is on the approved Credit by Examination list. This course covers computer concepts and introductions to Microsoft Windows 2000 and Microsoft Office (Word, Excel, Access, Powerpoint). XP/2002 (2003 for online and hybrid sections). This course is on the approved articulation agreement for transfer to the UNC system.
CIS 113	Computer Basics	None	None	Computer Programming and Applications	Required by some health programs. Good for special students that only want some basic computer experience. Similar to CIS 110 without the computer concepts' lecture.
CIS 115	Introduction to Programming & Logic	Math 070	CIS 110	Computer Programming and Applications	This course is on the approved articulation agreement for transfer to the UNC system. Uses Microsoft Visual C++.NET and Alice.
CIS 120 - replaced by CIS 130	Spreadsheet I	CIS 110	None	Computer Programming and Applications	This course uses Excel 2002 software. This course is on the approved Credit by Examination list.
CIS 130 - replaced by NOS 110	Survey of Operating Systems	CIS 110	None	Computer Programming and Applications	This course is primarily a lecture course teaching Operating Systems concepts and theory.
CIS 145 -0 replaced by NOS 130	Operating System-Single User	CIS 110	CIS 130	Computer Programming and Applications	This course uses the Windows operating system.
CIS 152 - replaced by DBA 110	Database Concepts and Applications	CIS 110 or CIS 115	None	Computer Programming and Applications	This course uses Microsoft Access 2002 software.
CIS 153 - replaced by DBA 115	Database Applications	CIS 152	None	Computer Programming and Applications	This course focuses on the advanced applications of Microsoft Access 2002 software.
CIS 157 - replaced by DBA 120	Database Programming I	CIS 152	None	Computer Programming and Applications	This course teaches SQL, PL/SQL and Oracle database management, forms, reports and administration.
CIS 163 - replaced by	Programming Interfaces Internet	CIS 110 and CIS 152	None	Computer Programming and	This course uses Active Server Pages (ASP) .NET using Macromedia Dreamweaver MX 2004 and PHP;

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WEB 180 and WEB 182				Applications	sometimes Perl
CIS 165	Desktop Publishing I	CIS 110	None	Computer Programming and Applications	This course uses Microsoft Publisher 2002 software.
CIS 169 - replaced by CTS 125	Business Presentations	CIS 110	None	Computer Programming and Applications	This course uses Microsoft PowerPoint 2002 software.
CIS 172 - replaced by WEB 110	Introduction to the Internet	CIS 110	None	Computer Programming and Applications	Learn internet concepts and how to create basic web pages using HTML. This course is on the approved Credit by Examination list.
CIS 174 - replaced by NOS 130	Network System Manager I	CIS 282 or NET 110	None	Information Systems	This course uses Windows XP Professional software.
CIS 175 - replaced by NOS 120	Network Management I	None	None	Information Systems	This is a Novell course; student must be admitted to a curriculum program. It is preferred that student complete NET 110 before registering for this course. NetWare previously, this course changed to SuSE Linux Fall 2005.
CIS 184 - deleted	TCP/IP and NFS	CIS 175	None	Information Systems	This is a Novell course; student must be admitted to a curriculum program. It is preferred that student complete NET110 before registering for this course.
CIS 220 - replaced by CTS 230	Spreadsheets II	CIS 120	None	Computer Programming and Applications	This course is a continuation course of CIS 120 that uses Microsoft Excel 2002 software.
CIS 225 - replaced by CTS 289	Integrated Software	CIS 120, CIS 152 and OST 136	None	Computer Programming and Applications	This is a capstone course for the Information Systems degree.
CIS 226 - deleted	Trends in Technology	CIS 130	None	Computer Programming and Applications	This course introduces emerging information systems technologies.
CIS 245	Operating Systems-Multi-Users	CIS 174	None	Information Systems	This is Microsoft MCSA prep certification course
CIS 246 - replaced by NOS 120	Operating System-UNIX	CIS 130	None	Information Systems	Uses Red Hat Linux; focus is on command-line interface; to be phased out Fall 2005 for CIS 175 which will teach SUSE Linux/Novell.
CIS 256 -	Database Analysis	CIS 115 and	None	Computer	

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deleted	and Design	CIS 153		Programming and Applications	
CIS 257 – replaced by DBA 220	Database Programming II	CIS 157	None	Computer Programming and Applications	This course is a continuation of CIS 157 that teaches SQL, PL/SQL, Oracle database management, forms, reports, and administration.
CIS 274 – replaced by NOS 230	Network System Manager II	CIS 174	None	Information Systems	Windows 2000 server course.
CIS 275 – replaced by NOS 220	Network Management II	CIS 175	None	Information Systems	This is a Novell course; student must be admitted to a curriculum program. NetWare previously, this course changed to SuSE Linux Spring 2005.
CIS 277	Network Design and Implementation	CIS 275	None	Information Systems	This is a Novell course; student must be admitted to a curriculum program.
CIS 279 – replaced by NOS 220	UNIX System Administration	CIS 246	None	Information Systems	This course is a continuation of CIS 246; to be phased out Fall 2005 for CIS 275.
CIS 282 – deleted	Network Technology	None	None	Information Systems	This course is on the approved Credit by Examination list
CIS 286 – replaced by CTS 285	Systems Analysis and Design	CIS 115 and CSC 141	None	Computer Programming and Applications	
CIS 287 – replaced by CTS 286	Network Support	CIS 275	None	Information Systems	Novell Service and Support
COE 110	World of Work	Permission of Prog. Director	COE 111	Information Systems	Student must contact Charlene West after registering for these courses.
COE 110	World of Work	OST 289 Permission of Prog. Director	COE 112	Office Systems	Student must contact Charlene West after registering for these courses.
COE 111	Co-op Work Experience I	Permission of Prog. Director	COE 110	Information Systems	Student must contact Charlene West after registering for these courses.
COE 112	Co-op Work Experience I	Permission of Prog. Director	COE 110	Office Systems	Student must contact Charlene West after registering for these courses.
CSC 120	Computing Fundamentals I	Math 080 or satisfactory score on	None	Computer Programming and Applications	Offered for elective and University Transfer students only. This course is on the approved articulation agreement for transfer to the UNC system. Uses

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		placement test and CIS 110			Microsoft Visual C++.NET .
CSC 130	Computing Fundamentals II	CSC 120	None	Computer Programming and Applications	This course is a continuation of CSC 130; Offered for elective and University Transfer students only. This course is on the approved articulation agreement for transfer to the UNC system. Uses Microsoft Visual C++.NET.
CSC 134	C ++ Programming	CIS 115	None	Computer Programming and Applications	Offered for University Transfer students only; will substitute for CSC 141. This course is on the approved articulation agreement for transfer to the UNC system. Uses Microsoft Visual C++.NET. Focus is on console applications.
CSC 139	Visual BASIC Programming	CIS 115	None	Computer Programming and Applications	This course uses Microsoft Visual Basic .NET. This course is on the approved articulation agreement for transfer to the UNC system..
CSC 141 – replaced by CSC 153	Visual C++ Programming	CIS 115	None	Computer Programming and Applications	This course uses Microsoft Visual C++ .NET. Focus is on console applications.
CSC 148 – replaced by CSC 151	JAVA Programming	CSC 134 or CIS 141	None	Computer Programming and Applications	This course uses Java 2 Standard Edition and the Swing GUI package on Windows platform using the Textpad editor. This course is on the approved articulation agreement for transfer to the UNC system..
CSC 151	JAVA Programming	CIS 115	None	Computer Programming and Applications	This course uses Java 2 Standard Edition and the Swing GUI package on Windows platform using the Textpad editor. This course is on the approved articulation agreement for transfer to the UNC system.
CSC 152	SAS	None	DBA 110	Computer Programming and Applications	This course emphasizes learning basic SAS commands and statements for solving a variety of data processing applications.
CSC 153	C# Programming	CIS 115	None	Computer Programming and Applications	This course uses Microsoft Visual C# 2.0.
CSC 160 – replaced by WEB 115	Introduction to Internet Programming	CIS 172	None	Computer Programming and Applications	This course introduces client side Internet programming using HTML and Javascript..
CSC 239	Advanced Visual BASIC Programming	CSC 139	DBA 110	Computer Programming and Applications	This course is a continuation of CSC 139 that uses Visual Basic .NET. This course is on the approved articulation agreement for transfer to the UNC system..

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CSC 241 – replaced by CSC 253	Advanced Visual C++	CSC 143	None	Computer Programming and Applications	This course is a continuation of CSC 141 that uses Visual C++ .NET.
CSC 248 – replaced by CSC 289 or CSC 251	Advanced Internet Programming	CSC 141	None	Computer Programming and Applications	This course is the capstone course for the Computer Programming degree. It requires prior knowledge of Microsoft Visual Basic, C++ and C#. PHP and Java are helpful.
CSC 251	Advanced JAVA Programming	CSC 151	DBA 120	Computer Programming and Applications	This course is a continuation of CSC 151 that uses the Java 2 Standard Edition, Swing GUI package and the Textpad editor.
CSC 253	Advanced C# Programming	CSC 153	DBA 110	Computer Programming and Applications	This course is a continuation of CSC 153 that uses Microsoft Visual C#.
CSC 289	Programming Capstone Project	CTS 285; two out of: CSC 239, CSC 251, CSC 253	None	Computer Programming and Applications	This course is the capstone course for the Computer Programming degree. It requires prior knowledge of Microsoft Visual Basic, C++ and C#. PHP and Java are helpful.
CTS 120	Hardware/Software Support	CIS 110			PC Troubleshooting – A+ Hardware certification
CTS 125	Presentation Graphics	CIS 110	None	Computer Programming and Applications	This course uses Microsoft PowerPoint 2002 software.
CTS 130	Spreadsheet	CIS 110	None	Computer Programming and Applications	This course uses Microsoft Excel 2002 software.
CTS 135	Integrated Software Intro	CIS 110, CTS 130, DBA 110, OST 136	None	Computer Programming and Applications	This course uses 2002 versions of Microsoft Word 2002, Excel 2002 and Access 2002 software.
CTS 220	Adv Hardware/Software Support	CTS 120			PC Software Troubleshooting – A+ Software certification
CTS 230	Advanced Spreadsheet	CTS 130	None	Computer Programming and Applications	This course is a continuation of CTS 130 that uses Microsoft Excel 2002 software.
CTS 285	Systems Analysis & Design	CIS 115	None	Computer Programming and Applications	

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CTS 286	Network Support	NOS 230 or NOS 231			This is a Novell course; student must be admitted to a curriculum program. Covers NetWare Service and Support – prerequisites should be ignored for Fall2006, student must have taken CIS275
CTS 289	System Support Project	CTS285; three from CTS 230, DBA 115, OST 236, etc	None	Information Systems	
DBA 110	Database Concepts	CIS 110	None	Computer Programming and Applications	This course uses Microsoft Access 2002 and MySQL software.
DBA 115	Database Applications	DBA 110	None	Computer Programming and Applications	This course is a continuation of DBA 110 and uses Microsoft Access 2002 and MySQL software.
DBA 120	Database Programming I	CIS 110 or CIS 115	None	Computer Programming and Applications	This course teaches SQL, PL/SQL and Oracle database management, forms, reports and administration.
DBA 220	Oracle DB Programming II	DBA 120	None	Computer Programming and Applications	This course is a continuation of DBA 120 that teaches SQL, PL/SQL, Oracle database management, forms, reports, and administration.
HIT 110	Health Information Orientation	Enrollment in HIT program	None	Health Information	This course introduces health information manag. and its role in health care delivery systems.
HIT 112	Health Law and Ethics	Enrollment in HIT program	None	Health Information	This covers the impact of legal issues on health information management.
HIT 114	Record Systems/Standards	Enrollment in HIT program	None	Health Information	This course covers basic concepts and techniques for managing and maintaining health record systems.
HIT 124	Directed Practice II	Enroll in HIT program	None	Health Information	Student must contact Program Director before registering for this course.
HIT 210	Health Care Statistics	MAT 140 and MAT 140A	None	Health Information	This course covers maintenance, compilation, analysis & presentation of health care statistics.
HIT 212	Coding/Classification I	Enroll in HIT program& PD permission	None	Health Information	May be open to students not in HIT program based on permission of the Program Director.
HIT 214	Coding/Classification II	HIT 212/ Enroll in HIT program&	None	Health Information	May be open to students not in HIT program based on permission of the Program Director.

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		PD's permission			
HIT 216	Quality Management	Enroll in HIT program	None	Health Information	This course introduces principles of quality improvement, utilization management, and risk management in health care.
HIT 222	Directed Practice III	Enroll in HIT program	None	Health Information	Student must contact Program Director before registering for this course.
HIT 226	Principle of Disease	BIO 163 or 169 and MED 121	MED 122	Health Information	
HIT 280	Professional Issues	HIT 212	HIT 214	Health Information	This course provides a comprehensive discussion of topics common to the health information profession.
ITN 130 – replaced by WEB 230	Web Site Management	CIS 174	None	Computer Programming and Applications	This course covers the issues involved in web site architecture using Microsoft Internet Information Server (IIS).
ITN 140 – replaced by WEB 140	Web Development Tools	None	None	Computer Programming and Applications	This course introduces Macromedia Dreamweaver and Fireworks to build websites in a client/server environment. Also touches on several scripting languages (Javascript, ASP/VBscript, PHP)..
ITN 150 – deleted	Internet Protocols	CIS 174	None	Computer Programming and Applications	Covers the internet communication of data and packets with rules associated with it. Covers also the data integrity and corruption during communication.
ITN 160 – replaced by WEB 210	Principles of Web Design	None	None	Computer Programming and Applications	This course covers basic web design issues with HTML, XHTML, XML, Dynamic HTML, Cascading Style Sheets (CSS), and graphics.
ITN 170 – replaced by WEB 250	Introduction to Internet Databases	CIS 152	None	Computer Programming and Applications	This course creates web applications that access Microsoft SQL Server and Access databases using HTML forms, ASP and ADO using Visual Basic/C#, and PHP.
ITN 180 – replaced by WEB 180	Active Server Programming	CSC 160	None	Computer Programming and Applications	This course introduces Microsoft Active Server Pages (ASP) .NET using Visual Basic/C#.
ITN 240 – replaced by SEC 110	Internet Security	ITN 150	None	Computer Programming and Applications	This course covers security issues related to Internet services.
ITN 260 – deleted	Introduction to e-Commerce	None	None	Computer Programming and Applications	This course introduces the concepts/tools to use electronic commerce via the Internet.

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ITN 270 - deleted	Advanced Internet Databases	ITN 170	None	Computer Programming and Applications	This is a continuation of ITN 170 that uses databases to store, retrieve and query data through HTML forms.
MED 121	Medical Terminology I	None	None	Office Systems	Required for HIT students
MED 122	Medical Terminology II	MED 121	None	Office Systems	Required for HIT students
NET 110 - deleted use NET 125	Data Communications/ Networking	None	None	Information Systems	This course is on the approved Credit by Examination list.
NET 112 - deleted use SEC 110	Security Fundamentals	NET 110	None	Information Systems	This course introduces security concepts and policies
NET 125	Routing and Switching I	NET 110	None	Information Systems	This course introduces the OSI model, network topologies, IP addressing, and simple routing. CCNA1 Cisco networking course - Part 1 of 4 for CCNA certification
NET 126	Routing and Switching II	NET 125	None	Information Systems	This course introduces router configurations, router protocols, switching methods, and terms. CCNA2 Cisco networking course - Part 2 of 4 for CCNA certification
NET 175	Wireless Technology	NET 125 or NET 110			Interoperability with wireless communications.
NET 225	Advanced Routing and Switching I	NET 126	None	Information Systems	This course introduces advanced router config, advanced LAN switching theory and design, VLANs, and threaded case studies. CCNA3 Cisco networking course - Part 3 of 4 for CCNA certification
NET 226	Advanced Routing and Switching II	NET 225	None	Information Systems	This course introduces WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, and additional case studies. CCNA4 Cisco networking course - Part 4 of 4 for CCNA certification
NET 289	Networking Project	NET 226			Capstone course for networking program, design and implement a significant networking project.
NOS 110	Operating System Concepts				
NOS 120	Linux Single User	NOS 110			This is a Novell course; student must be admitted to a

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					curriculum program. Linux + certification course. Course 3060 Getting Started with Linux: Novell's Gu to CompTIA's Linux+
NOS 130	Windows Single User	NOS 110			
NOS 220	Linux Admin I	NOS 120			This is a Novell course; student must be admitted to a curriculum program. Course 3037 : SUSE Linux Enterprise Server Administration (SLES9). Part of CLP certification
NOS 221	Linux Admin II	NOS 220			This is a Novell course; student must be admitted to a curriculum program. Course 3038 Advanced : SUSE Linux Enterprise Server Administration (SLES9) Part of CLP certification
NOS 222	Linux Admin III	NOS 221			This is a Novell course; student must be admitted to a curriculum program. Cover SuSE Enterprise Server (SLES). Part of CLE certification
NOS 230	Windows Admin I	NOS 130			Windows 2003 Server course – Part of Microsoft MCSA certification. Microsoft course 70-290 “Managing and Maintaining a Microsoft Windows Server 2003 Environment “
NOS 231	Windows Admin II	NOS 230			Windows 2003 Server course – Part of Microsoft MCSA certification. Microsoft course 70-291 “Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure”
NOS 232	Windows Admin III	NOS 231			Windows 2003 Server course – Part of Microsoft MCSA certification. Microsoft course 70-299 “Implementing and Administering Security in a Microsoft Windows Server 2003 Network”
OST 131	Keyboarding	None	None	Office Systems	
OST 132	Keyboard Skill Building	OST 131	None	Office Systems	This course provides accuracy-building and speed-building drills.
OST 134	Text Entry and Formatting	OST 131	None	Office Systems	
OST 135	Advanced Text Entry and Formatting	OST 134	None	Office Systems	
OST 136	Word Processing	None	None	Office Systems	
OST 148	Medical Coding Billing	None	None	Office Systems	This course introduces CPT and ICD coding as they

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	and Insurance				apply to medical insurance and billing.
OST 149	Medical Legal Issues	None	None	Office Systems	This course introduces legal, moral, and ethical issues involved in providing health care services.
OST 164	Text Editing Applications	ENG 111, OST 134, and OST 136	None	Office Systems	
OST 181	Introduction to Office Systems	None	None	Office Systems	This course introduces the skills and abilities needed in today's office.
OST 223	Machine Transcription I	OST 134, OST 136 and OST 164	None	Office Systems	
OST 224	Machine Transcription II	OST 223	None	Office Systems	
OST 236	Advanced Word/Information Processing	OST 135 or OST 136	None	Office Systems	
OST 241	Medical Office Transcription I	MED 121	None	Office Systems	
OST 242	Medical Office Transcription II	OST 241	None	Office Systems	
OST 243	Medical Office Stimulation	OST 131 or OST 148	None	Office Systems	
OST 284	Emerging Technologies	None	None	Office Systems	
OST 289	Office Systems Management	OST 134, OST 136 and OST 164	None	Office Systems	
SEC 110	Security Concepts				Security+ certification
SEC 150	Secure Communications	SEC 110			VPNs, SSH, IPSEC, secure networks
SEC 160	Secure Admin I	SEC 110			Operating System Security - locking down servers and networks
SEC 210	Intrusion Detection	SEC 160			Intrusion detection, prevention, traffic analysis
SEC 220	Defense-In-Depth	SEC 160			Security industry best practices for securing Information Systems
SEC 240	Wireless Security	SEC 110 and NET 175			Securing wireless networks
SEC 289	Security Capstone Project	SEC 220			Policy, planning, procedure, and secure architecture put into practice.
WEB 110	Internet/Web	None	CIS 110	Web Technologies	Learn internet concepts and how to create basic web

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	Fundamentals				pages using HTML. This course is on the approved Credit by Examination list.
WEB 115	Web Markup and Scripting	WEB 110	CIS 115	Web Technologies	This course introduces client-side Internet programming using HTML and Javascript.
WEB 120	Intro Internet Multimedia	WEB 115	None	Web Technologies	
WEB 140	Web Development Tools	WEB 110	None	Web Technologies	This course introduces Macromedia Dreamweaver and Fireworks to build websites in a client/server environment. Also touches on several scripting languages (Javascript, ASP/VBscript, PHP)..
WEB 180	Active Server Pages	CIS 115 and WEB 115	DBA 110	Web Technologies	This course teaches server s web apps using Macromedia Dreamweaver MX 2004 and ASP technologies.
WEB 182	PHP Programming	CIS 115 and WEB 115	DBA 110	Web Technologies	This course teaches web scripting using PHP software.
WEB 183	Perl Programming	CIS 115	None	Web Technologies	This course teaches scripting using Perl software.
WEB 210	Web Design	None	None	Web Technologies	This course covers basic web design issues with HTML, XHTML, XML, Dynamic HTML, Cascading Style Sheets (CSS), and graphics.
WEB 230	Implementing Web Services	NET 125 and NOS 130	None	Web Technologies	This course covers the issues involved in web site architecture using Microsoft Internet Information Server (IIS).
WEB 250	Database Driven Websites	DBA 110 and WEB 140	None	Web Technologies	This course creates web applications that access Microsoft SQL Server and Access databases using HTML forms, ASP and ADO using Visual Basic/C#, and PHP.
WEB 289	Internet Technologies Project	WEB 230 and WEB 250	None	Web Technologies	This is the capstone course for the Web Technologies degree.