INFORMATION LITERACY AND TECHNOLOGICAL AGILITY

Syracuse University Shared Competencies (https://coursecatalog.syracuse.edu/shared-competencies/)

The Information Literacy and Technological Agility competency is one of Syracuse University's six institutional learning goals that enhance undergraduate education through an integrated learning approach. Undergraduate students develop competencies through their major degree courses, liberal arts requirements, and co-curricular experiences.

Students can expect to learn the knowledge and skills outlined in the following description and learning outcomes in each specified rubric (https://effectiveness.syr.edu/shared-competencies/shared-competencies-rubrics/): Identification, collection, evaluation, and responsible use of information. Effective, ethical, and critical application of various technologies and media in academic, creative, personal, and professional endeavors.

Code	Title	Credits
ACC 425	Accounting Information Systems	3
ACC 452	Accounting Analytics	3
ACC 481	Taxation of Business Entities	3
ACC 625	Accounting Information Systems	3
ACC 652	Accounting Analytics	3
ACC 777	Taxation of Business Entities	3
ADV 408	The Power and Promise of Data	3
ADV 507	Strategic Media Planning	3
ADV 608	The Power and Promise of Data	3
AEE 342	Aerodynamics	4
AIA 210	Foundations of Digital Automation	3
AIA 328	Predictive Analytics for Digital Automation	3
AIA 330	Applications and Dashboards in Digital Automation	3
AIA 340	Process Reengineering using Digital Automation	3
AIA 427	Sensor and IoT Data in Digital Automation	3
AIA 430	Generative AI in Digital Automation	3
APH 263	Art Photography:Advanced Digital Imaging	3
APH 340	Topics in Art Photography	3
APH 564	Image/Sequence: Photo Book	3
ARB 326	Structure of Standard Arabic	3
ARC 121	Introduction to Building and Structural Systems	3
ARC 322	Building Systems Design II	3
ARC 423	Advanced Building Systems	3
ARC 437	Renaissance Architecture in Italy:1400-1600	3
ARC 555	Introduction to Building Information Modeling	3
ARC 558	Advanced Building Information Modeling and 3D Design	3
ARC 566	Introduction to Preservation	3
ARC 585	Professional Practice	3
ARC 623	Advanced Building Systems	3
BDJ 353	Television Sports Anchoring and Reporting	3
BDJ 354	Sports Beat and Event Reporting	1
BDJ 356	Radio Sportscasting	3
BDJ 653	Television Sports Anchoring and Reporting	3
BDJ 654	Sports Beat and Event Reporting	1
BDJ 656	Radio Sportscasting	3
BEN 441	Mobile Health (mHealth) Device Design and Application	3
BEN 521	Stem Cell Engineering	3
BEN 641	Mobile Health (mHealth) Device Design and Application	3
BPS 144	Orange Immersion	2
BPS 315	Practical Financial Management for the Working Professional	3
BUA 345	Business Analytics for Management Decisions	3
BUA 451	Advanced Business Analytics	3
BUA 455	Data Management for Business	3
BUA 466	Data Mining for Business	3
BUA 488	Predictive Learning for Business	3
CAR 330	Topics in Computer Gaming II	3
CCE 302	Civic Engagement Research Seminar	3
CEE 271	Environmental Chemistry and Analysis	3
CEE 273	Introduction to Geomatics and GIS	3
CEE 329	Probability, Statistics and Risk for Civil and Environmental Engineering	4
CEE 331	Analysis of Structures and Materials	3
CEE 337	Introduction to Geotechnical Engineering	4
CEE 352	Water Resources Engineering	4
CEE 401	Construction Engineering and Project Management	3
CEE 413	Physical Hydrology	3
CEE 601	Construction Engineering and Project Management	3
CEE 613	Physical Hydrology	3
CEN 252	Chemical Engineering Thermodynamics I	3
CEN 353	Chemical Engineering Thermodynamics II	3
CEN 442	Heat and Mass Transfer Operations	3
CEN 455	Materials for Energy Systems	3
CEN 575	Process Control	3
CEN 655	Materials for Energy Systems	3
CFE 362	Youth, Schooling and Popular Culture	3
CFE 662	Youth, Schooling and Popular Culture	3
CIN 303	Nonfiction Video Storytelling	3
CIN 313	Cinematography I: Fundamentals	3
CIN 323	Cinematic Light & Lens	3
CIN 433	Cinematography II: Cinematic Storytelling	3
CIN 483	Cinematography Capstone	3
CIN 503	Virtual Production	3
CIN 603	Nonfiction Video Storytelling	3
CIN 613	Cinematography I: Fundamentals	3
CIN 623	Cinematic Light & Lens	3
CIN 633	Cinematography II: Cinematic Storytelling	3
CIS 151	Fundamentals of Computing and Programming	3
CIS 252	Elements of Computer Science	4
CIS 321	Introduction to Probability and Statistics	4
CIS 341	Computer Organization & Programming Systems	3

CIS 351	Data Structures	3
CIS 425	Introduction to Computer Graphics	3
CIS 428	Introduction to Cryptography	3
CIS 437	Multiagent Systems: Concepts and Programming	3
CIS 453	Software Specification and Design	3
CIS 454	Software Implementation	3
CIS 473	Automata and Computability	3
CIS 477	Introduction to Analysis of Algorithms	3
CIS 487	Access Control, Security and Trust	3
CIS 554	Object Oriented Programming in C++	3
CIS 563	Introduction to Data Science	3
CIS 637	Multiagent Systems: Concepts and Programming	3
CLA 421	Classical Mythology	3
COM 427	Social Media for Communicators	3
CPS 181	Introduction to Computing	3
CPS 196	Introduction to Computer Programming	3
CPS 621	Introduction to Probability and Statistics	4
CRS 314	Performance Studies	3
CRS 315	Emerging Domains in Communication Studies	3
CRS 416	Remix Culture	3
CRS 615	Emerging Domains in Communication Studies	3
CRS 716	Remix Culture	3
CSE 261	Digital Logic Design	3
CSE 262	Digital Logic Design Laboratory	1
CSE 283	Introduction to Object-Oriented Design	3
CSE 381	Computer Architecture	3
CSE 384	Systems and Network Programming	3
CSE 389	Web System Architecture and Programming	3
CSE 397	Microcontroller Laboratory	3
CSE 398	Embedded and Mobile Systems Laboratory	3
CSE 464	Introduction to VLSI Design	3
CSE 483	C# and Windows Programming	3
CSE 484	Introduction to Computer and Network Security	3
CSE 486	Design of Operating Systems	3
CSE 487	Access Control, Security and Trust	3
CSE 488	Introduction to Internet Security	3
CSE 491	Senior Design Project I	3
CSE 492	Senior Design Project II	3
CSE 581	Introduction to Database Management Systems	3
CYB 233	Introduction to Computer Networking and Cloud Computing for Professional Studies	3
CYB 323	Introduction to Information Security for Professional Studies	3
CYB 334	Security in the Networked Environment for Professional Studies	3
CYB 336	Leading Issues in Information Security for Professional Studies	3
CYB 342	Information Security Policy for Professional Studies	3
CYB 346	Information Technology Management and Administration for Professional Studies	3
CYB 402	Digital Forensics for Professional Studies	3
CYB 425	Enterprise Risk Management for Professional Studies	3
CYB 476	Applied Information Security for Professional Studies	3
DES 101	Digital Tools for Designers I	3
DES 104	Fundamentals of Design	3
DES 303	Soft Goods Design and Production	3
DES 305	Digital Design Techniques I	3
DES 335	App Design and Prototyping	3
DES 605	Digital Design Techniques I	3
DES 635	App Design and Prototyping	3
DRD 313	CAD for the Theater	3
DRD 412	Advanced Techniques in Theatrical Rendering	3
DRD 427	Tailoring Techniques for the Theater	3
DRD 431	Stage Lighting III	3
DRD 433	Advanced Techniques in Stage Lighting Technology	3
EAR 201	Introduction to Earth and Environmental Data Analysis	2
EAR 402	Numerical Methods in Geosciences	3
EAR 413	Physical Hydrology	3
EAR 415	Introduction to Climate Dynamics	3
EAR 602	Numerical Methods in Geosciences	3
EAR 613	Physical Hydrology	3
EAR 615	Introduction to Climate Dynamics	3
EDI 253	Design Presentation and Techniques I	3
EDI 254	Design Presentation and Techniques II	3
EDI 255	Environmental Factors I	3
EDI 256	Environmental Factors II	3
EDI 351	Environmental Design III	3
EDI 353	Environmental Factors III	3
EDU 221	Education for Transformation	3
EDU 337	Science Methods and Curriculum	3
EDU 516	Equitable Assessment for Inclusive Classrooms	3
EDU 522	Social Studies and Democracy: The Reconstruction of Education	3
EDU 637	Science Methods and Curriculum	3
EEE 451	Finance for Emerging Enterprises	3
EEE 651	Finance for Emerging Enterprises	3
ELE 314	Power Engineering	3
ELE 324	Electromagnetics I	3
ELE 333	Analog Electronics	3
ELE 346	Semiconductor Devices	3
ELE 351	System and Signal Analysis	3
ELE 352	Digital Signal Processing	3
ELE 414	Power System Analysis and Control	3
ELE 415	Microgrids	3
ELE 417	Power Electronics	3
ELE 424	Applied Electromagnetics	3
ELE 464	Introduction to VLSI Design	3
ELE 491	Senior Design Project I	3
ELE 614	Power System Analysis and Control	3
ELE 615	Microgrids	3

ELE 617	Power Electronics	3
ENG 242	Reading and Interpretation	3
ENG 406	Advanced Critical Writing in ETS	3
ENG 407	Advanced Critical Writing, Topics Before 1900	3
ENG 420	Topics in Cultural Production and Reception	3
EXE 452	Advanced Metabolic Exercise Testing	3
EXE 652	Advanced Metabolic Exercise Testing	3
FAS 301	Digital Presentation for Fashion Design	3
FAS 335	History of Fashion Design I: Origins and Revivals	3
FAS 336	History of Fashion Design II: Contemporary Trends	3
FIL 121	Filmmaking Workshop: Physical Aspects	3
FIL 124	Filmmaking Workshop: Concepts	3
FIL 223	Cinematic Modes of Production: Fiction/Hybrid	3
FIN 454	Financial Analytics	3
FIN 461	Financial Modeling	3
FIN 462	Corporate Restructurings	3
FIN 761	Financial Modeling	3
FMA 153	Making Media: Fundamentals	3
FMA 154	Making Media: Intermediate Studio	3
FMA 155	Intro to Film and Media Arts: Film Making	0-3
FMA 156	Intro to Film and Media Arts: Audio	0-3
FSC 467	Forensic Photography with lab	3
FSC 667	Forensic Photography with lab	3
GEO 108	Mapping Today: Technology and Spatial Thinking	3
GEO 313	The United States	3
GEO 323	Quantitative Methods in Human Geography	3
GEO 381	Cartographic Design	3
GEO 382	Counter-Mapping	3
GEO 383	Geographic Information Systems	3-4
GEO 450	Geographies of Migration and Mobility	3
GEO 476	Advanced GIS Analysis and Applications	3
GEO 482	Environmental Remote Sensing	3-4
GEO 484	GIS for Urban Environments	3
GEO 623	Quantitative Methods in Human Geography	3
GEO 676	Advanced GIS Analysis and Applications	3
GEO 682	Environmental Remote Sensing	3-4
GEO 683	Geographic Information Systems	3-4
GEO 684	GIS for Urban Environments	3
HCA 310	Electronic Healthcare Systems	3
HCA 320	Crisis (Emergency) Management	3
HCA 355	Financial Reimbursement in Healthcare	3
HFS 315	Children, Youth, & the Media	3
HFS 331	Play, Childhood Development and Early Education	3
HFS 458	Science of Caring and Sharing	3
HFS 494	HDFS Capstone Internship	3
HFS 658	Science of Caring and Sharing	3
HNR 350	Topics in the Natural Sciences and Mathematics Honors	3
HOA 437	Renaissance Architecture in Italy:1400-1600	3
HOA 577	Introduction to Preservation	3
HST 310	The Early Middle Ages	3
HST 372	Caste and Inequality in Modern India	3

HUM 141	Computing Culture: Technology and the Humanities Computing Culture: Technology and the Humanities	3
HUM 441	Digital Humanities Capstone	3
IDE 405	Digital Pedagogies and Assistive Technology	3
IDE 552	Digital Media Production	3
IDS 350	Global Information Technology Abroad	3-6
IDS 355	Global Information Technology Abroad	0
IDS 360	Information Technology Experience	1-3
IDS 650	Global Information Technology Abroad	3-6
IDS 655	Global Information Technology Abroad	0
IDS 660	Information Technology Experience	1-3
ILL 256	Intro to Digital Illustration	3
IND 132	Industrial and Interaction Design Visualization Techniques I	3
IND 256	Digital Twin I	3
IND 264	Visualizing Design Research	3
IND 271	Sustainable Product Systems I	3
IND 273	Prototyping	3
IND 274	Principles of Industrial Form II	3
IND 276	Industrial Design: Visualization and Representation	3
IND 278	Designing Interaction	3
IND 337	Industrial and Interaction Design Visualization Techniques II	3
IND 339	Semiotics: Messages and Interpretations	3
IND 375	Human Factors For Designers	3
IND 447	Digital Twin II	3
IND 471	Digital and Physical Intersections	3
IND 475	Advanced Design Studio	3
IND 478	Symbology and Semiotics in Industrial Design	3
IND 673	Human Factors For Designers	3
IST 101	First-Year Forum	1
IST 195	Information Technologies	3
IST 233	Introduction to Networks and Cloud Computing	3
IST 256	Introduction to Python for the Information Profession	3
IST 263	Introduction to Front-End Web Development	3
IST 305	Globalization, Collaboration, Culture, Systems & Data	3
IST 325	Information Management Consultation	3
IST 335	Introduction to Information-Based Organizations	3
IST 337	iSchool Support Practicum	1-3
IST 341	Human-Centered Design	3
IST 342	Information Security Policy	3
IST 346	Information Technology Management and Administration	3
IST 353	Graphic Design for the Web	3
IST 356	Programming Techniques for Data Analytics	3
IST 359	Introduction to Database Management Systems	3
IST 363	Advanced Front End Web Design	3
IST 387	Introduction to Applied Data Science	3
IST 402	Digital Forensics	3

Code	Title	Credits	Code	Title	Credits
IST 408	Blockchain Management	3	MMI 365	Web Development & Design for Media	3
IST 421	Information Visualization	3	MMI 425	Advanced Media Business	3
IST 426	Information Justice & Community Engagement	3	MMI 427	New Media Venture Launch	3
IST 431	Security in a Networked Environment	3	MMI 434	Trendspotting in Digital Media	3
IST 452	Advanced Computer Networking	3	MMI 475	Advanced Web Design	3
IST 469	Advanced Big Data Management	3	MMI 606	Strategic Content Management	3
IST 476	Applied Information Security	3	MMI 625	Advanced Media Business	3
IST 511	Cultural Foundations of Information Studies	3	MMI 627	New Media Venture Launch	3
IST 564	Accessible Library & Information Services	3	MMI 634	Trendspotting in Digital Media	3
IST 608	Blockchain Management	3	MMI 665	Web Development & Design for Media	3
IST 626	Information Justice & Community Engagement	3	MMI 675	Advanced Web Design	3
IST 652	Scripting for Data Analysis	3	MND 411	Web and Mobile Story Production	3
IST 769	Advanced Big Data Management	3	MND 413	Emerging Media Platforms	3
JNL 221	Foundations of Data and Digital Journalism	3	MND 441	Visual Thinking for Digital Magazines	3
JNL 442	Advanced Data Journalism: Telling Stories with Data	3	MND 505	Digital News & Innovation	3
JNL 461	Mobile and Social Media Journalism	3	MND 545	Virtual Reality Storytelling	3
JNL 642	Advanced Data Journalism: Telling Stories with Data	3	MND 611	Web and Mobile Story Production	3
KNM 311	Safeguarding Knowledge Management and Codification Data	3	MND 613	Emerging Media Platforms	3
LIN 305	Linguistic Structure of English	3	MPD 421	Multimedia Production	3
LIN 321	Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching	3	MPD 511	Still Imaging for Multimedia Production	1
LIN 326	Structure of Standard Arabic	3	MPD 621	Multimedia Production	3
LIN 422	Advanced Methods of Teaching Languages: English/Foreign Language Teaching	3	MTC 418	Choral Arranging	2
LIN 605	Linguistic Structure of English	3	MTC 618	Choral Arranging	2
LIN 621	Introduction to Methodology of Teaching Languages: English/Foreign Language Teaching	3	MUE 115	Technology in Music Education	2
			MUI 305	Music Industry Marketing and Media	3
LIN 622	Advanced Methods of Teaching Languages: English/Foreign Language Teaching	3	MUI 321	Concert Recording I	2
			MUI 411	Recording Studio Management I	2
LIN 626	Structure of Standard Arabic	3	MUI 412	Recording Studio Management II	2
LIT 421	Classical Mythology	3	MUI 605	Music Industry Marketing and Media	3
MAE 333	Data Analysis for Engineers	3	MUI 621	Concert Recording I	2
MAE 525	Soft Robotics: Materials, Mechanics, and Machines	3	MUI 711	Recording Studio Management I	2
MAE 530	Introduction to Design Optimization	3	NSD 115	Food Science I	3
MAE 571	Applications of Computational Fluid Dynamics	3	NSD 225	Nutrition in Health	3
MAE 573	Application of Finite Element Analysis	3	NSD 447	Weight Management, Obesity and Disordered Eating	3
MAR 356	Marketing Research	3	NSD 457	Research and Evaluation in Nutrition	3
MAR 401	Electronic Retailing and Marketing	3	NSD 647	Weight Management, Obesity and Disordered Eating	3
MAS 261	Introductory Statistics for Management	3	PHP 223	Public Health Data & Decision Making	3
MAS 466	Data Mining for Business	3	PHP 303	Environmental Health	3
MAT 422	Statistical Computing	3	PHP 401	Epidemiology	3
MAT 495	Fundamentals of Data Science	3	PHP 402	Implementing and Evaluating Health Programs	3
MAT 524	Regression Analysis	3	PHP 405	Science and Practice of Mindfulness	3
MAT 527	Analysis of Variance and Experimental Design	3	PHP 605	Science and Practice of Mindfulness	3
MAT 581	Numerical Methods with Programming	3	PPM 320	Project Controls	3
MAT 695	Fundamentals of Data Science	3	PRL 315	Public Relations Research	3
MIS 325	Information Technology for Business	3	PST 101	An Introduction to the Analysis of Public Policy	3
MIS 625	Information Technology for Business	3	PST 315	Methods of Public Policy Analysis and Presentation	3
MMI 306	Strategic Content Management	3	PSY 331	Laboratory in Sensation and Perception	3
			RED 512	Children's and Adolescent Literature	3
			REL 421	Classical Mythology	3
			RES 362	Real Estate Finance and Investment	3

RES 492	Real Estate Modeling	3
RES 662	Real Estate Finance and Investment	3
RES 692	Real Estate Modeling	3
RMT 301	Retailing Fundamentals	3
RMT 457	Electronic Retailing and Marketing	3
SAL 284	Introduction to Python for Sport Analytics	3
SAL 295	Research Methodology for Sport Analytics	3
SAL 313	Sport Data Analysis II	3
SAL 333	Introduction to Sport Science Analytics	3
SAL 358	Sport Analytics Arizona Immersion	3
SAL 413	R for Sport Analytics	3
SAS 372	Caste and Inequality in Modern India	3
SCM 455	Lean Six Sigma	3
SCM 456	Introduction to Project Management	3
SCM 755	Lean Six Sigma	3
SCP 103	Introduction to Computing Systems	3
SCP 220	Basic Principles of Computer Programming	3
SCP 285	Object-Oriented Programming	3
SCP 305	Database Management	3
SCP 355	Introduction to Javascript/jQuery	3
SMC 214	Writing for Sports Communications	3
SMC 330	Topics in Esports and Media	3
SMC 403	Sports Content for Social Platforms	3
SMC 405	Esports Event Production	3
SMC 482	Sports Feature Production Capstone	3
SMC 483	Esports Communications Capstone	3
SMC 603	Sports Content for Social Platforms	3
SMC 630	Topics in Esports and Media	3
SOC 361	Youth, Schooling and Popular Culture	3
SPM 324	Sport Sponsorship and Promotion	3
SPM 345	Technology in Sport Management	3
SPM 449	Technologies in Game Day Operations	3
SPM 649	Technologies in Game Day Operations	3
STC 118	Multimedia Production for Communications	3
STC 207	Graphic Design for Strategic Communicators	3
STC 319	Digital Analytics for Strategic Communications	3
STC 401	Foundations of Media, Content and Planning	3
STC 402	Trends and Tech in Media	3
STC 411	Advanced Media Production	3
TRF 235	Principles and Practices: Television-Radio, Film Industries	3
TRF 441	Visual Effects for Live Action	3
TRF 442	Multicamera Television Production	3
TRF 443	The Business of Development, Production and Post-Production	3
TRF 447	Animation for Film and TV	3
TRF 448	Audio Storytelling	3
TRF 451	Directing	3
TRF 453	Short-form Production	3
TRF 456	Sound for Picture	3
TRF 457	Music Underscoring	3
TRF 459	Documentary Production	3

TRF 463	Television, Radio and Film Capstone	3
TRF 464	Production Capstone	3
TRF 465	Hollywood: Game Changers	3
TRF 592	Film Business	3
TRF 641	Visual Effects for Live Action	3
TRF 642	Multicamera Television Production	3
TRF 647	Animation for Film and TV	3
TRF 648	Audio Storytelling	3
TRF 651	Directing	3
TRF 653	Short-form Production	3
TRF 656	Sound for Picture	3
TRF 657	Music Underscoring	3
TRF 659	Documentary Production	3
TRF 663	Television, Radio and Film Capstone	3
TRF 664	Production Capstone	3
VID 211	Video Sketchbook	3
VID 212	Intro Art Video	3
VID 313	Advanced Post-Production Techniques	3
VID 613	Advanced Post-Production Techniques	3
VIS 231	Visual Journalism	3
VIS 237	Game Experience Design	3
VIS 251	Still Photography for Broadcast Journalism	1
VIS 261	Videography for Broadcast Journalism	2
VIS 304	Foundations in Camera, Light and Concept	3
VIS 317	Typographic Design	3
VIS 337	Motion Graphics for Production	3
VIS 361	Visual News Reporting	3
VIS 402	Essentials for Visual Communicators	1
VIS 437	Design and World Building for Esports	3
VIS 457	User Interface and User Experience (UI/UX) Design	3
VIS 467	Immersive Design	3
VIS 507	Intermediate Design and Production for Non-Majors	3
VIS 517	Interactive Fashion Communications	3
VIS 527	Publication Design	3
VIS 544	Fashion and Portraiture	3
VIS 602	Essentials for Visual Communicators	1
VIS 604	Foundations in Camera, Light and Concept	3
VIS 617	Typographic Design	3
VIS 657	User Interface and User Experience (UI/UX) Design	3
VIS 667	Immersive Design	3
WGS 362	Youth, Schooling and Popular Culture	3
WGS 662	Youth, Schooling and Popular Culture	3
WRT 302	Advanced Writing Studio: Digital Writing	3
WRT 303	Advanced Writing Studio: Research and Writing	3
WRT 340	Advanced Editing Studio	3
WRT 413	Rhetoric and Ethics	3
WRT 417	Technical Documentation & Usability	3
WRT 426	Studies in Writing, Rhetoric, and Information Technology	3
WRT 427	Emerging Technologies in Professional & Technical Writing	3
WRT 428	Studies in Composition, Rhetoric and Literacy	3

WRT 437	Rhetoric and Information Design	3
WRT 617	Technical Documentation & Usability	3
WRT 627	Emerging Technologies in Professional & Technical Writing	3
WRT 637	Rhetoric and Information Design	3