



**College of Information and Cyberspace
Schedule of Courses
Academic Year 2019-2020
Fall Semester**





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Welcome

Located at Fort Lesley J. McNair on the Washington, DC waterfront, the College of Information and Cyberspace (NDU CIC) is the largest of five graduate-level colleges that comprise the National Defense University. The CIC educates future thought leaders and change agents who will make the difference in government, and strives to meet your workforce education needs for information leadership and management.

The CIC Office of Student Services processes admissions and registration, maintains students' academic records, and publishes the CIC **Schedule of Courses**. The Office of Student Services also manages the admission and enrollment systems used by students, faculty and advisors.

Information about our programs and courses is available on our website. Please let us know if you need additional information by contacting the Office of Student Services at 202-685-6300 or by email at cicoss@ndu.edu.

ENROLLMENT PROCEDURES

Course Registration

Students who are admitted to the CIC at NDU will be sent detailed instructions regarding course registration, account information for online systems, and advisor information. In order to be registered for a course, a course request form must be completed for each enrollment requested. The course request form is available on the CIC website at <https://cic.ndu.edu/Current-Students/Student-Registration/>

Members of special program cohorts will receive registration instructions from the program director.

IA Compliance and Registration

NDU provides all of its students with access to the Internet, wireless networks, curricula, and research tools -- all via DoD owned, managed, or compliant information systems. Access is predicated on student compliance with DoD Information Assurance (IA) regulations and requirements. Students will not be enrolled in a course until all IA compliance requirements have been met and confirmed by NDU IT. Non-compliant students will be placed on the course waitlist until compliance is confirmed. Compliance instructions can be found on the CIC website at http://www.ndu.edu/Students/IA_NonJPME/

Confirmation of Course Registration

Students will receive a course status email (enrolled/ waitlisted) within 7 to 10 business days of their course request. The CIC may send additional reminders and attendance confirmation requests prior to the course start date. Students should promptly respond to requests for information.

Multiple Registrations Policy

Students may register for one or more eResident sections when instructional periods do not overlap (i.e., the instructional period in the first three weeks of a course). Students are permitted to take two DL courses concurrently. Students on an academic probation status must seek permission for entry to the second course. Requests must be submitted to the CIC Office of Student Services in writing (CICOSS@ndu.edu; Fax: 202-685-4860) no later than 2 weeks prior to the course start date. Note: A student who is granted permission but fails to complete both courses successfully may not be considered for concurrent registration in the future.

REGISTRATION PERIODS

Registration opens on the dates below and will close on the Thursday prior to the Course Start Date (CSD).

Registration Opens	Semester
April 15, 2019	Fall: August 2019 – December 2019
October 15, 2019	Spring: January 2020 – May 2020

CONFIRMATION OF ENROLLMENT & CONTACT INFORMATION VALIDATION

Students who successfully register for a course section will receive a class acceptance notice to their preferred email address of record.

Please ensure the following contact information is up-to-date with the Office of Student Services:

- Preferred Email Address
- Preferred contact telephone number
- Current Employer

The CIC will make every effort to reach the student prior to taking a drop action should the course section be cancelled. Students are encouraged to contact the Office of Student Services at any time prior to the Course Start Date to verify enrollment or to update contact information.

NDU CIC Office of
Student Services
202-685-6300
cicoss@ndu.edu

COURSE AVAILABILITY IN BLACKBOARD

Each course section has a site on the CIC's online learning platform, Blackboard. This site will be available to students on the course start date. Students must access Blackboard and sign in immediately following the Course Start Date to begin course work. Please note that students will NOT see their course registration in Blackboard until noon on the course start date.

DROP POLICY

Students may disenroll at any time prior to the Course Start Date (CSD) via email notification to the OSS. In accordance with academic policy, any drop after the Course Start Date will result in a grade being assigned in the course. See the online CIC Catalog for the complete grading policy.

Course Models

NOTE

Each course section has a site on the CIC's online learning platform, Blackboard. This site will be available to students **on the Course Start Date for e-Resident and Distributed Learning (DL) courses**. Students must access Blackboard and sign in immediately following the Course Start Date.

NDU CIC *Intensive Courses* are offered in two formats: 1) *e-Resident* and 2) *Distributed Learning (DL)*.

e-Resident

The e-Resident format is a five week course that uses a blended model in which students and faculty engage in both online and resident activities that ensure high quality interaction and feedback, student learning and assessment, and academic rigor.

Week One - Online

The first week of an e-Resident course is an asynchronous DL lesson designed to prepare students for the face-to-face component of the course that starts in the second week. Students begin by signing in to Blackboard (Bb), retrieving their readings, assignments, and other course instructions. During this week of virtual engagement, students must complete the assigned readings, participate online, and complete the assignments. The faculty leading the course section will assign a grade of "W" (Withdrawal) to students who do not sign into Blackboard and satisfactorily engage in the required activities (i.e., a grade of "W" will drop the student from the course on Friday afternoon.) Students who receive a "W" may not attend the seminar (resident) portion the following week. All students must meet week one requirements whether taking a course for credit or for professional development.

Week Two - In Residence

During this fulltime week of seminar, students and faculty participate in an interactive learning environment in CIC classrooms at Ft. McNair (or other designated location). The seminar is conducted from 8 to 5 Monday through Friday, with homework often assigned to prepare for the next day's lessons.

Week Three - Online

The third week of the course is designed to synthesize learning and prepare students for the follow-on graded final assessment. Participation in synthesis is required and graded for students seeking credit for the course.

Weeks Four & Five - Online

The final two weeks of a course are dedicated to completing the final assessment. Students enrolled for certificate/graduate credit must complete an end-of-course assessment, typically a substantive paper or project. Students may engage virtually with the faculty and/or other students as appropriate. Normally, assessments are due no later than the Monday, 2 ½ weeks after the last day of the synthesis (as noted as the last day of the course section in the schedule).

Distributed Learning (DL) – The Distributed Learning (DL) format engages students and faculty virtually over 12 weeks via Blackboard. The first 10 weeks of course, students are engaged in online seminar. The final two weeks is dedicated for assessment completion. The end-of-course assessment is typically a substantive paper or project that allows students to demonstrate their mastery of the intended learning outcomes. To receive credit for a course, students must be actively engaged virtually in every DL lesson as assigned by faculty. Final assessments are due no later than the Monday following the 12th week. Assessments are due no later than the Monday following the 12th week. The last day to withdraw from a DL course is the Monday of the 4th week of class.

DL Session	Last Day to Withdraw
9/6/2019-11/24/2019	9/30/2019
9/20/2019-12/15/2019	10/14/2019

Key Terms

Key terms found in the *Schedule of Courses* or website:

- **Course Number** – Course Number is the four digit identifier of the class. For example, for the course titled “Continuation of Operations,” the Course Number is 6504. The Course Number can be found in the Class Listing section of the *Schedule of Courses* and in the Course Listing page of the CIC website.
- **Course Start Date** – The Course Start Date of a class is the first day of the active learning period. All courses (e-Resident and DL) will require active engagement with the faculty effective this date. See ***e-Resident Format*** and ***DL Format*** definitions above.
- **Course End Date** – The Course End Date is the final day of the active learning period. See ***e-Resident Format*** and ***DL Format*** definitions above.
- **Student Arrival** – The Student Arrival date represents the start date of the face-to-face portion of the class. See ***e-Resident*** definition above.
- **Student Departure** – The Student Departure date represents the end date of the face-to-face portion of the class. See ***e-Resident*** definition above.

Class Schedule by Course

Please recall that the last day to withdraw from a course with a grade of 'W' is:
e-Resident Format – The Friday ending the first full week
Distributed Learning - The Monday of the 4th week of class.

DL Session	Last Day to Withdraw
9/6/2019-11/24/2019	9/30/2019
9/20/2019-12/15/2019	10/14/2019

All (6203)—Information Assurance and Critical Infrastructure Protection

This course provides a comprehensive overview of information assurance and critical information Infrastructure protection. Information assurance of information assets and protection of the information component of critical national infrastructures essential to national security are explored. The focus is at the public policy and strategic management level, providing a foundation for analyzing the information security component of information systems and critical infrastructures. Laws, national strategies and public policies, and strengths and weaknesses of various approaches are examined for assuring the confidentiality, integrity, and availability of critical information assets.

Learning Outcomes: Students will be able to analyze laws, national strategies, and public policies; and assess the strengths and weaknesses of various approaches for assuring the confidentiality, integrity, and availability of those information created, stored, processed, and communicated by information systems and critical information infrastructures.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	8/9/2019	8/19/2019	8/23/2019	9/15/2019	e-Resident
2	9/6/2019	DL	DL	11/24/2019	Distributed Learning

ARC (6412)—Enterprise Architecture for Leaders

This course examines enterprise architecture (EA) as a strategic capability organizational leaders use for enterprise planning, resource investment, management decision-making, and key process execution. Students explore leadership competencies and strategies needed to advance EA adoption and assess the integration of EA with governance, strategic planning, budgeting, portfolio management, capital planning, and information assurance.

They critique EA prescriptive frameworks that guide EA development activities and review EA evaluative frameworks used to assess organizational EA management capacity and capability. Students evaluate challenges to organizational EA adoption and consider strategies to address them.

Learning Outcomes: Students will be able to evaluate the nexus between enterprise architecture (EA) and successful enterprise planning and operations, EA's role in facilitating other critical agency activities, e.g., budgeting, capital planning, and investment control (CPIC) and information assurance (IA), the application of EA models, and strategies to address the challenges of EA adoption, use, and institutionalization.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2009	Distributed Learning

ATO (6209) —Approval to Operate: Information System Certification and Accreditation

This course examines the information security certification and accreditation principles leading to final Approval to Operate (ATO) an information system. The course examines roles, responsibilities, documentation, organizational structure, directives, and reporting requirements to support the Designated Accrediting Authority

(DAA) in approving the security control functionality level of an information system and granting ATO at a specified level of trust. The course provides an overview of DOD and Federal department and agency certification and accreditation processes (e.g., Defense Information Assurance Certification and Accreditation Process; NIST Certification and Accreditation Process), information assurance acquisition management, and system security architecture considerations.

Learning Outcomes: Students will be able to document a certification and accreditation plan, present and justify the plan to senior management for approval, and develop a systems security authorization agreement for their organization.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning
2	10/11/2019	10/21/2019	10/25/2019	11/17/2019	e-Resident

CAP (6700) – Capstone*

The Capstone course is the culminating learning experience of the Government Information Leadership (GIL) Master of Science Degree Program. While enrolled in CAP, students complete a capstone synthesis project in his or her area of concentration. The NDU CIC department responsible for each Master of Science concentration will define the specific nature and detailed requirements for the type of project suitable for the respective concentration, and decide how a particular project type is assigned to a specific student.

Learning Outcomes: Students who have successfully completed the Capstone course will be able to integrate critical concepts from their course work, independent readings, and professional practice; apply this knowledge to the analysis of broad, enduring issues in information leadership in their concentration area; and create and present an executive-level project that synthesizes the major themes and conclusions across the concentration in a capstone project.

***CAPSTONE is the final course for the M.S. degree. Students need not submit a registration form. CIC Academic Affairs will register candidates for the appropriate section.**

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

CBL (6204) – Cyberlaw

This course presents a comprehensive overview of ethical issues, legal resources and recourses, and public policy implications inherent in our evolving online society. Complex and dynamic state of the law as it applies to behavior in cyberspace is introduced, and the pitfalls and dangers of governing in an interconnected world are explored. Ethical, legal, and policy frameworks for information assurance personnel are covered. Various organizations and materials that can provide assistance to operate ethically and legally in cyberspace are examined. Topics include intellectual property protection; electronic contracting and payments; notice to and consent from e-message recipients regarding monitoring, non-repudiation, and computer crime; and the impact of ethical, moral, legal, and policy issues on privacy, fair information practices, equity, content control, and freedom of electronic speech using information systems.

Learning Outcomes: Students will be able to assess potential legal issues that might flow from implementing and not implementing information security policies, practices, and procedures, and create policies and operating procedures for an organization that are ethically and legally sound.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

CFF (6601)—Changing World of the CFO

CFO Program students only

This course focuses on the changing environment for the government Chief Financial Officer (CFO). Students explore the fundamental role of the collaborative and networked community as the critical ingredient of success. The course provides an overview of the essential elements of the current and future roles of government CFO's and their senior staffs. It surveys the various roles of the executive and strategic leader in the world of government financial management including budget officer, compliance officer, internal controls/risk manager, strategic planner, fiduciary reporter, and reporter of management and financial information. The course discusses the policies, challenges and opportunities associated with decision support to management, financial reporting, business process improvement, systems integration, financial systems, workforce development, performance management, budget, and portfolio management. Students discuss standards, accountability, privacy, and transparency issues.

Learning Outcomes: Students will be able to analyze the most pressing governance issues relevant to leading financial transformations in government; evaluate the philosophical perspectives, roles and dynamic relationships of organizations and functional areas impacting the financial communities decision support to leadership; analyze and evaluate the critical integration necessary between financial management functions required to lead an effective CFO organization; and analyze cross government collaboration and the networked community as key facilitators of success for the CFO in the future.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

CIO (6303)—CIO 2.0 Roles and Responsibilities

Students examine the essential analytic, relational, technological, and leadership competencies that government CIOs and their staffs need to respond to and shape the 21st Century environment. Students assess the high information and IT demands of customers; examine the potential and perils of ubiquitous technology and information saturation; and weigh the tradeoffs of resource constraints, legal and policy mandates, and security in an open environment. The dynamic and multi-dimensional roles and responsibilities of government CIOs and their staffs are scrutinized to assess opportunities and challenges for improving governance, resource management, and decision making. Students analyze critical internal (CTO, CFO, Commander, Agency Head, Operations Chiefs) and external (other governmental agencies, OMB, Congress, and the private sector) relationships that CIOs and their staffs need to foster in order to satisfy their mission-related, legal, organizational, and political mandates.

Learning Outcomes: Students will be able to analyze the multi-dimensional and shared leadership roles and responsibilities of government CIOs and their staffs; recommend internal and external relationships that CIOs must foster in order to respond to and shape the environment while meeting their legal, policy, and organizational mandates; and advocate a more active role for CIOs in formulation of policies that have potential impacts from leveraging emerging technologies.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

CIP (6230) — Critical Information Infrastructure Protection

This course examines the security of information in computer and communications networks within infrastructure sectors critical to national security. These include the sectors of banking, securities and commodities markets,

industrial supply chain, electrical/smart grid, energy production, transportation systems, communications, water supply, and health. Special attention is paid to the risk management of information in critical infrastructure environments through an analysis & synthesis of assets, threats, vulnerabilities, impacts, and countermeasures. Students learn the importance of interconnection reliability and methods for observing, measuring, and testing negative impacts. Critical consideration is paid to the key role of Supervisory Control and Data Acquisition (SCADA) systems in the flow of resources such as electricity, water, and fuel. Students learn how to develop an improved security posture for a segment of the nation’s critical information infrastructure. *Learning Outcomes: Students will be able to use a people, process, and technology framework to assess a current strategy and devise an improved security strategy for interconnection or for a specific control systems environment within a national critical infrastructure area.*

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

COO (6504) —Continuityof Operations

This course focuses on developing and implementing effective continuity of operations (COOP) plans in public sector agencies. Using federal regulations and policies as a backdrop, the course examines the technological, human capital, legal, and business factors involved in creating and maintaining a COOP plan. Topics include determining business requirements, selecting alternate sites, employing technology to increase organizational resilience, developing exercises, and creating and implementing emergency plans. Through a series of exercises, students develop skills in creating, evaluating and implementing continuity of operations policies and plans. *Learning Outcomes: Students will be able to analyze current continuity of operations plans for adequacy and compliance with federal law, regulations and best practices, and to develop new continuity of operations plans to address organizational risks and contingencies.*

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning

CYI (6232) — Cyber Intelligence

This course examines the Cyber Leader’s role in Cyber Intelligence from two perspectives: first, as an *enabler* of Cyber Intelligence through the acquisition and delivery of Strategic Information Technology (Strategic IT) systems supporting intelligence missions, processes, and functions across the U.S. Intelligence Community (IC); and, second, as a *consumer* of Cyber Intelligence products and services as part of planning and executing cyberspace-dependent operations. The course presents an overview of the IC’s general roles and responsibilities, including the intelligence cycle in support of national security decision making, before analyzing Cyber Intelligence operational requirements, production, and services. It concludes with how to develop and implement appropriate Cyber Intelligence IT strategies and operational plans.

LEARNING OUTCOMES:

At the completion of the course, students will be able to: 1. Analyze how U.S. national security policy and strategy, U.S. public policy, and IC Strategic IT governance shape, and are shaped by, current and future Cyber Intelligence requirements. 2. Evaluate the challenges of and opportunities for collaboration in cyberspace between the IC, other U.S. government departments and agencies, and the private sector in Strategic IT and Cyber Intelligence. 3. Assess the effects of organizational culture, collaborative behavior, fiscal environment, department/agency missions, public policy mandates, and statutory guidance on Cyber Intelligence.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

DAL (6420) Data Analytics for Leaders

*DMS (6414) is recommended prerequisite

This course examines how organizations can improve mission execution by employing data analytics capabilities. Establishing and maturing these capabilities requires leadership as well as an ability to both conduct analytics and interpret analytic results. Students will apply qualitative and quantitative measures on data sets to better enable organizations to meet mission needs and organization priorities. The quality of data and the sources from which data are collected are explored. Compliance, security and the ‘ethical’ use of data will also be topics of discussion within the course. *Learning Outcomes: Upon completing this course, students will be able to:*

- *Assess and advance an organization’s overall ‘information orientation’, specifically its data analytic capability; and its ability to conduct and interpret analytic results.*
- *Justify using data analytics and more data-driven organizational decision making processes;*
- *Apply appropriate tools, concepts, models, and platforms to address the vast and diverse data needs anticipated for the future;*
- *Present and communicate data results in a way that enables stakeholders to value data analytics as a transformative means of decision making;*

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning

DMG (6323)—Decision Making for Government Leaders

This course examines the environment, opportunities, and challenges of leadership decision making in government agency and interagency settings from individual, managerial, and multi-party perspectives. Decision contexts and the consequences for federal government leaders and organizations are viewed using the multiple perspectives of governance, policy, technology, culture, and economics. Students actively explore and reflect on how and why decisions are made by immersing themselves into complex issue scenarios and using leading-edge decision tools. *Learning Outcomes: Students will be able to analyze leadership decision making and the decision environments in federal government agency and interagency settings; assess the challenges and opportunities for decision makers in federal government collaborative and information-sharing environments; assess decision consequences and outcomes in terms of agency missions, political mandates, and statutory guidance; and determine the types of decision tools appropriate for their organization.*

*DMG is required to complete the Data Strategy and Analytics Certificate

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning
2	10/18/2019	10/28/2019	11/1/2019	11/24/2019	e-Resident

DMS (6414)—Data Management Strategies and Technologies: A Managerial Perspective

This course explores data management and its enabling technologies as key components for improving mission effectiveness through the development of open, enterprise-wide, and state-of-the-art data architectures. It examines management issues such as the implementation of the data component of the Enterprise Architecture specified by OMB. The course considers key data management strategies, including the DOD Net-Centric Data Strategy, and the Federal Enterprise Architecture (FEA) Data Reference Model and their enabling information technologies including data warehousing, electronic archiving, data mining, neural networks, and other knowledge discovery methodologies. Students explore data management issues and implementation. The course provides sufficient insight into the underlying technologies to ensure that students can evaluate the capabilities and limitations of data management options and strategies.

Learning Outcomes: Students will be able to assess an organization's current data architecture and implementation and develop strategies to enhance them to improve agency mission effectiveness.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	9/30/2019	10/4/2019	10/27/2019	e-Resident

EIT (6442) - Emerging Information Technology

This course examines the core concepts of information technology and its rapidly expanding role in solving problems, influencing decision making and implementing organizational change. Students analyze how emerging technologies evolve. They evaluate the international, political, social, economic and cultural impacts of emerging technologies using qualitative and quantitative evaluation methods. Students assess emerging technologies using forecasting methodologies such as monitoring and expert opinion, examining future trends, and assessing international perspectives.

Learning Outcomes: Students will be able to appraise the impact and utility of emerging technologies; project into the near future the probable progress of emerging trends; formulate policies to guide the adoption of appropriate emerging technology to enhance the workplace and meet organizational mission.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning
2	10/11/2019	10/21/2019	10/25/2019	11/17/2019	e-Resident

ESS (6206)—Enterprise Information Security and Risk Management

This course explores three themes, based on the Certified Information Security Manager® (CISM®), critical to enterprise information and cyber security management areas: information security risk management, information security/assurance governance, and information security/assurance program management. Examining the concepts and trends in the practice of risk management, the course analyzes their applicability to the protection of information. Information security/assurance governance is illuminated by exploring oversight, legislation, and guidance that influence federal government information security/assurance. The course explores the challenges of implementing risk management and governance through enterprise security/assurance program management.

This includes enterprise information and cyber security strategies, policies, standards, controls, measures (security assessment/metrics), incident response, resource allocation, workforce issues, ethics, roles, and organizational structure.

Learning Outcome: Students will be able to recommend a risk management approach for an enterprise information and cyber security program for their organizations.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	8/16/2019	8/26/2019	8/30/2019	9/22/2019	e-Resident
2	9/6/2019	DL	DL	11/24/2019	Distributed Learning
3	11/8/2019	11/18/2019	11/22/2019	12/15/2019	e-Resident

FFR (6607) — The Future of Federal Financial Information Sharing

For CFO Program students only

This course focuses on the vital role Chief Financial Officers and financial managers have in providing federal financial information. To fully support decision making, this actionable financial information must be timely, accurate, transparent, accountable, and result in "clean" audit opinions. To evaluate the quality of Federal

financial information sharing, the course explores the current stovepipes of financial statements, budgetary reporting, program/project cost reporting, and financial standards, as well as a holistic view of crosscutting information such as financial and non-financial dashboards. In addition, successful financial information sharing in the current dynamic environment can be facilitated by financial systems, data management techniques, and effective communication with internal and external users.

Learning Outcomes: Students will be able to identify potential internal and external consumers of Federal financial information and to evaluate the consumers desires and expectations; analyze the changing roles, requirements, and expectations for financial, budget, and program/project financial information in government organizations from legal, policy, and technological perspectives; evaluate financial systems and processes, and data management techniques that support new information sharing challenges; and to design a leadership plan for their organization that responds to current and future expectations for financial information sharing that supports decision making at all levels.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning

IPC (6228) —International Perspective on Cyberspace

This course provides an overview of the issues surrounding transnational cyberspace policies, international investment strategies, and implementation of information and communication technologies (ICT) that affect the global economy and transforms the flow of information across cultural and geographic boundaries. Students examine the cyberspace policies that empower ICT innovation, various global governance frameworks, and organizations that shape and transform cyberspace, to include the Internet Corporation for Assigned Names and Numbers (ICANN), the International Telecommunications Union (ITU), the World Bank Information and Communications Technology Sector, and the U.S. Federal Communications Commission (FCC)

Learning outcomes: Students will be able to formulate and implement internationally strategies to promote an open, interoperable, secure, and reliable information and communications infrastructure that supports international trade and commerce, strengthens international security, and innovation. They will be able to assess and recommend critical success factors which build and sustain an environment in which cyber norms of responsible behavior guide nation states' actions, sustain public and private sector partnerships, and support transnational rules of law in cyberspace.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	9/30/2019	10/4/2019	10/27/2019	e-Resident

IPL (6411) —Information Technology Program Leadership

This course examines the challenges of Federal program leadership in an Information Technology (IT) context. Students gain theoretical insight, supplemented by practical exercises, covering a variety of program/project leadership concepts and techniques. Particular areas of focus include customer service, stakeholder relations, decision-making methods, processes and pitfalls, interpersonal skills, organizational awareness and dynamics, and written and oral communication skills. The course explores the role of oversight in the management and leadership of Federal IT acquisition programs.

Learning Outcomes: Students will be able to evaluate leadership challenges likely to arise in managing an IT project, identify and implement appropriate strategies to manage them successfully, and communicate project plans and technical content effectively, either orally or in writing.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	8/2/2019	8/12/2019	8/16/2019	9/8/2019	e-Resident
2	9/6/2019	DL	DL	11/24/2019	Distributed Learning

ITA (6415) —Strategic Information Technology Acquisition

This course examines the role senior leaders in both government and industry play in the successful acquisition of information technologies and services to achieve strategic organizational goals. Using the framework of the systems development life-cycle, it explores regulatory policies, acquisition strategies, requirements management, performance measurement, and deployment and sustainment activities that directly impact IT acquisition.

Acquisition best practices such as performance-based contracting, risk management, use of service-level agreements, trade-off analyses, as well as the pros and cons for use of commercial off-the-shelf products are explored. Significant focus is placed on contracting issues including; the role of the contracting officer, building a solid request-for-proposal, how to prepare for and run a source selection and the role of oral presentations.

Learning outcomes: Students will be able to evaluate agency information technology acquisition programs using a systems development life-cycle framework to identify and correct deficiencies in strategy, requirements, design, development, test, deployment and sustainment.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning
2	10/25/2019	11/4/2019	11/8/2019	12/1/2019	e-Resident

ITP (6416) —Information Technology Project Management

This course focuses on project and program management in an Information Technology (IT) context, including financial systems. Students explore industry-accepted project management processes, e.g., the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK) framework, and apply project management concepts. Major topics include planning and management of project communications, scope, time, cost, quality, risk, human resources, procurement, and project integration. Factors that make IT projects unique and difficult to manage are explored, along with tools and techniques for managing them. This course challenges students to gain hands-on project management experience by performing complex project management tasks leading to the development of a project management strategy/plan.

Learning outcomes: Students will be able to assess a project management strategy/plan and develop a plan for an IT project.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning
2	10/18/2019	10/28/2019	11/1/2019	11/24/2019	e-Resident

MAC (6512) —Multi-Agency Information-Enabled Collaboration

The course focuses on multi-agency collaboration in support of national and homeland security and national preparedness planning, decision-making and implementation. It examines current and proposed strategies, means and models for substantially improving the effectiveness of collaboration at the federal, state and local levels, and beyond to include multilateral situations with non-governmental, media, and international organizations and coalition partners. The course assists students to synthesize the underlying principles that define effective collaboration, and critical lessons learned from past challenges and current experiments. Legal, budgetary, structural, cultural and other impediments that inhibit inter-agency mission effectiveness are assessed, as are strategies for addressing them. The course explores evolving network structures, collaborative tool-sets including social media, cross-boundary information-sharing and work processes, emergent governance arrangements, and the behaviors and skills of collaborative leadership as a key component of

government strategic leadership *Learning Outcomes: Students will be able to formulate and shape strategic, operational or tactical-level initiatives aimed at improving effectiveness in missions that critically depend upon multi-agency collaboration; appraise critically the ends, ways, and means including tools, technologies, and work practices, of highly effective multi-agency collaborations; and develop, propose, and defend recommendations for initiatives aimed at effective multi-agency collaboration and their supporting execution and transition plans.*

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

NSC(6329) – National Security and Cyber Power Strategies

This course prepares students for strategic-level military and government leadership through the study of national security and cyberspace policies and strategies and their execution through cyber power statecraft. With an understanding of the principles of strategy and U.S. national security architecture as a starting points, students explore the design components of national security strategy, including the instruments and resources of national power and the processes for formulating and stress testing national and subordinate level strategies. The course then focuses on the features of cyberspace as an evolving domain of national and international security, examining cyber power geopolitics and international relations strategies and statecraft. The course concludes with Project Solarium II - an exercise where students design and critique cyber power strategies to achieve desired scenario-based national security outcomes.

Learning Outcomes: Students will be able to:

1. *Apply key strategic concepts, critical thinking and analytical frameworks for sense-making of contemporary and future national and international security environments and for the formulation, implementation and evaluation of national security policy and strategy.*
2. *Evaluate U.S. architectures, policy/strategy formulation culture, and processes through which national security and cyber power policies and strategies are formulated.*
3. *Construct and defend a top-level national security-focused national cyber power strategy that orchestrates successfully the instruments and resources of national power and statecraft to address key strategic-level issues relevant to leveraging and protecting the strategic advantages of cyberspace.*

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	9/16/2019	9/20/2019	10/13/2019	e-Resident
2	9/20/2019	DL	DL	12/15/2019	Distributed Learning

OCL (6321)—Organizational Culture for Strategic Leaders

This course explores the strategic and persistent effects of culture on mission performance. Students examine the ways in which leaders can employ this powerful influence to nurture organizational excellence or to stimulate changes in organizational behavior. They investigate organizational sciences for traditional and Information Age perspectives on organizational behavior, on frameworks for assessing organizational cultures, and on strategies to initiate and institutionalize strategic mission-oriented change. Cross-boundary, inter-agency, cross-generational, and global influences, issues, and challenges are examined from a cultural perspective.

Learning Outcomes: Students will be able to assess the culture of an organization within its strategic context, understand culture's critical role in processes and decision making, and design strategic initiatives to either sustain or change the organizational culture to support organizational missions that effectively contribute to Information Age government.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning
2	9/20/2019	DL	DL	12/15/2019	Distributed Learning
3	10/11/2019	10/21/2019	10/25/2019	11/17/2019	e-Resident

PFM (6315) —Capital Planning and Portfolio Management

This course focuses on state-of-the-art strategies for portfolio management, with an emphasis on assessing, planning, and managing information technology (IT) as a portfolio of projects from the perspectives of CIOs and CFOs. The three phases of the investment management process are considered: selection, control, and evaluation of proposals; on-going projects; and existing systems. The relationship of performance measures to mission performance measures is explored. The course examines the roles of the CIO, the CFO, and other managers in developing investment assessment criteria, considers how the criteria are used in planning and managing the portfolio, and explores the Office of Management and Budget's (OMB) portfolio perspective as found in Circular A-11, Part 7, Section 53, Information Technology and E-Government. Individual and team exercises are employed, including simulation of an IT investment portfolio review by the Investment Review Board.

Learning Outcomes: Students will be able to evaluate an investment portfolio and the corresponding capital planning and investment management process to ensure that they comply with current statutes and regulations, recommend changes to the process, and develop a strategy for balancing a portfolio of investment

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/6/2019	DL	DL	11/24/2019	Distributed Learning

RIA (6608)—Risk Management, Internal Controls, and Auditing for Leaders

For CFO Program students only

This course presents a strategic understanding of risk management, internal controls, and auditing as they relate to the functions and responsibilities within the CFO and audit communities. This course examines how effective leadership can enhance efficiency, effectiveness, accountability, and transparency of an organization to include federal, state, and local governments. The primary focus is on the importance of identifying and assessing risks, describing and improving internal controls techniques and practices, and evaluating and recommending audit management strategies. The course includes practical discussions to illustrate how these processes can be integrated and leveraged to solve problems, make informed decisions, and minimize compliance costs.

Learning Outcomes: Students will be able to articulate the importance of risk management and demonstrate how risk management techniques can be used in their organizations to improve overall effectiveness and address fiscal and operational challenges that exist in the public sector; describe and apply internal controls techniques for assessing financial, as well as, program operations; describe the audit process and the key roles and responsibilities of auditors; recommend techniques used to effectively manage the audit process, which can result in improved working relationships between auditors and auditees; and to identify the key elements of effective risk management, internal controls, and auditing processes and show how these components can be integrated and leveraged to add value to the organization.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	10/11/2019	10/21/2019	10/25/2019	11/17/2019	e-Resident

SEC (6201) – Cyber Security for Information Leaders

This course explores concepts and practices of defending the modern net-centric computer and communications environment. The course covers the 10 domains of the Certified Information System Security Professional (CISSP®) Common Body of Knowledge (CBK®). It covers a wide range of technical issues and current topics including basics of network security; threats, vulnerabilities, and risks; network vulnerability assessment; firewalls and intrusion detection; transmission security and TEMPEST; operating system security; web security; encryption and key management; physical and personnel security; incident handling and forensics; authentication, access control, and biometrics; wireless security; virtual/3D Worlds; and emerging network security technologies such as radio frequency identification (RFID) and supervisory control and data acquisition (SCADA) security. The course also defines the role of all personnel in promoting security awareness.

Learning Outcomes: Students will be able to evaluate the cyber-security posture of an organization to determine adequate people, processes and technology security.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	8/16/2019	8/26/2019	8/30/2019	9/22/2019	e-Resident
2	9/6/2019	DL	DL	11/24/2019	Distributed Learning
3	10/25/2019	11/4/2019	11/8/2019	12/1/2019	e-Resident

SPB (6328) — Strategic Performance and Budget Management

This course is an executive-level view of strategic planning, performance management, and performance budgeting in public-sector organizations. Using the Government Performance and Results Act and Kaplan & Norton's Balanced Scorecard as frameworks, students examine the linkage of mission to strategic planning, performance management, measurement, operational strategies, initiatives, and budgets to support senior-level decision making. Emphasis is on transparency, outcomes, and linkage between organizational performance and the organization's budget. With this critical understanding, students develop leadership strategies that shape fiscal budgets to achieve agency strategic outcomes.

Learning Outcomes: Students will be able to integrate strategic planning and performance management principles into a public-sector organization assessment to support senior decision-making and strategic communications; compose an appropriate organizational strategy assessment plan and measurement strategy that incorporates performance budgeting into results-oriented government and aids decision makers in leading their organizations toward outcome-based mission effectiveness; define appropriate performance measures that support government organizations and link the organization's mission, vision, goals, objectives, initiatives, strategy, budget, and performance outcomes; analyze the Federal budgeting and appropriations process, identify contemporary and emerging challenges that may affect results-oriented government, and evaluate possible impacts upon their agency.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	8/9/2019	8/19/2019	8/23/2019	9/15/2019	e-Resident
2	9/6/2019	DL	DL	11/24/2019	Distributed Learning
3	9/27/2019	10/7/2019	10/11/2019	11/3/2019	e-Resident

TCC (6215)—Terrorism and Crime in Cyberspace

This course explores the nature of conflict in the cyber realm by focusing on two major Internet-based threats to U.S. national security: cyber terrorism and cyber crime. The course examines who is undertaking these cyber activities, what techniques they use, and what countermeasures can be adopted to mitigate their impact. The course provides a risk management framework to help information leaders leverage the benefits of Internet technologies while minimizing the risks that such technologies pose to their organizations.

Learning Outcomes: Students will be able to assess the risks posed by cyber terrorism and cyber crime to U.S. national security in general, and to their specific organizations in particular; and evaluate the benefits and costs of different countermeasures that could be used to mitigate those risks.

Section	Course Start Date	On Campus		Course End Date	Format / Comment
		Student Arrival	Student Departure		
1	9/20/2019	DL	DL	12/15/2019	Distributed Learning

Class Schedule by Date

Course ID	Abbr.	Section	Course Start Date	On-Site Course Start Date	On-Site Course End Date	Course End Date
6411	IPL	01	8/2/2019	8/12/2019	8/16/2019	9/8/2019
6203	All	01	8/9/2019	8/19/2019	8/23/2019	9/15/2019
6328	SPB	01	8/9/2019	8/19/2019	8/23/2019	9/15/2019
6206	ESS	01	8/16/2019	8/26/2019	8/30/2019	9/22/2019
6201	SEC	01	8/16/2019	8/26/2019	8/30/2019	9/22/2019
6203	All	02	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6412	ARC	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6209	ATO	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6204	CBL	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6601	CFF	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6303	CIO	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6230	CIP	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6232	CYI	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6323	DMG	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6206	ESS	02	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6411	IPL	02	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6415	ITA	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6512	MAC	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6321	OCL	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6315	PFM	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6215	TCC	01	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6201	SEC	02	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6328	SPB	02	9/6/2019	Distributed Learning	Distributed Learning	11/24/2019
6329	NSC	01	9/6/2019	9/16/2019	9/20/2019	10/13/2019
6414	DMS	01	9/20/2019	9/30/2019	10/4/2019	10/27/2019
6228	IPC	01	9/20/2019	9/30/2019	10/4/2019	10/27/2019
6504	COO	01	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6420	DAL	01	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6442	EIT	01	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6607	FFR	01	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6416	ITP	01	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6329	NSC	02	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6321	OCL	02	9/20/2019	Distributed Learning	Distributed Learning	12/15/2019
6328	SPB	03	9/27/2019	10/7/2019	10/11/2019	11/3/2019
6209	ATO	02	10/11/2019	10/21/2019	10/25/2019	11/17/2019
6442	EIT	02	10/11/2019	10/21/2019	10/25/2019	11/17/2019
6321	OCL	03	10/11/2019	10/21/2019	10/25/2019	11/17/2019
6608	RIA	01	10/11/2019	10/21/2019	10/25/2019	11/17/2019
6323	DMG	02	10/18/2019	10/28/2019	11/1/2019	11/24/2019
6416	ITP	02	10/18/2019	10/28/2019	11/1/2019	11/24/2019
6415	ITA	02	10/25/2019	11/4/2019	11/8/2019	12/1/2019
6201	SEC	03	10/25/2019	11/4/2019	11/8/2019	12/1/2019
6206	ESS	03	11/8/2019	11/18/2019	11/22/2019	12/15/2019