



**College of Information and Cyberspace
Schedule of Courses
Academic Year 2020-2021
Spring 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 at <https://cic.ndu.edu/>. 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 two DL courses concurrently. Students on an academic probation status must seek permission for entry to multiple DL offerings. 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.

REGISTRATION PERIODS

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

Registration Opens
October 15, 2020

Semester
Spring: January 2021 – April 2021

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 dis-enroll at any time prior to the Course Start Date (CSD) via email notification to the Office of Student Services. Students who seek to withdraw from a course after the course start date must complete a Course Withdrawal Form. The form is available on the CIC website at <https://cic.ndu.edu/Current-Students/Student-Registration/>.

In accordance with academic policy, any drop on or 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 at **12:00pm (noon) on the Course Start Date for Distributed Learning (DL) courses**. Students must access Blackboard and sign in immediately following the Course Start Date.

NDU CIC Spring 2021 *Intensive Courses* will be offered in the following format: *Distributed Learning (DL)*.

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	Last Day to Withdraw
1/08/2021 – 4/04/2021	2/01/2021

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 the **DL Format** definition above.
- **Course End Date** – The Course End Date is the final day of the active learning period. See the **DL Format** definition above.
- **Student Arrival** – The Student Arrival date represents the start date of the face-to-face portion of the class. There is no face-to-face portion for Distributed Learning courses. See the **DL Format** definition above.
- **Student Departure** – The Student Departure date represents the end date of the face-to-face portion of the class. There is no face-to-face portion for Distributed Learning courses. See the **DL Format** definition above.

Class Schedule by Course

**Please recall that the last day to withdraw from a course with a grade of 'W' is:
Distributed Learning - The Monday of the 4th week of class**

DL	Last Day to Withdraw
1/08/2021 – 4/04/2021	2/01/2021

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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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.

Section	Course Start Date	On Campus		Course End Date	Format/Comment
		Student Arrival	Student Departure		
06	1/08/2021	DL	DL	4/04/2021	Distributed Learning
07	1/08/2021	DL	DL	4/04/2021	Distributed Learning
08	1/08/2021	DL	DL	4/04/2021	Distributed Learning
09	1/08/2021	DL	DL	4/04/2021	Distributed Learning
10	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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

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 issue 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		
01	1/08/2021	DL	DL	4/04/2021	Distributed Learning

CFF (6601) - Changing World of the CFO (For 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 transformation 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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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		
02	1/08/2021	DL	DL	4/04/2021	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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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		
01	1/08/2021	DL	DL	4/04/2021	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		
02	1/08/2021	DL	DL	4/04/2021	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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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 projects.

Section	Course Start Date	On Campus		Course End Date	Format/Comment
		Student Arrival	Student Departure		
02	1/08/2021	DL	DL	4/04/2021	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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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. This 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		
01	1/08/2021	DL	DL	4/04/2021	Distributed Learning

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		
02	1/08/2021	DL	DL	4/04/2021	Distributed Learning

Class Schedule by Date

Course ID	Abbreviation	Section	Course Start Date	On-Site Course Start Date	On-Site Course End Date	Course End Date
6203	All	02	01/08/2021	DL	DL	04/04/2021
6700	CAP	06	01/08/2021	DL	DL	04/04/2021
6700	CAP	07	01/08/2021	DL	DL	04/04/2021
6700	CAP	08	01/08/2021	DL	DL	04/04/2021
6700	CAP	09	01/08/2021	DL	DL	04/04/2021
6700	CAP	10	01/08/2021	DL	DL	04/04/2021
6204	CBL	01	01/08/2021	DL	DL	04/04/2021
6601	CFF	02	01/08/2021	DL	DL	04/04/2021
6414	DMS	02	01/08/2021	DL	DL	04/04/2021
6442	EIT	02	01/08/2021	DL	DL	04/04/2021
6415	ITA	02	01/08/2021	DL	DL	04/04/2021
6512	MAC	02	01/08/2021	DL	DL	04/04/2021
6329	NSC	02	01/08/2021	DL	DL	04/04/2021
6321	OCL	02	01/08/2021	DL	DL	04/04/2021
6315	PFM	02	01/08/2021	DL	DL	04/04/2021
6608	RIA	02	01/08/2021	DL	DL	04/04/2021
6201	SEC	01	01/08/2021	DL	DL	04/04/2021
6328	SPB	02	01/08/2021	DL	DL	04/04/2021