The Applied Research Project (ARP) is one of three capstone options D4CS students have to fulfill the culminating or capstone experience required in the degree program. Alternatively, students may do a thesis or fieldwork.

**Goal of the ARP.** The goal of the ARP is to advance a student's capacity to independently apply theory to practice by completing a project that entails work on a relevant practical problem or issue. The student works on the project from conception to conclusion resulting in a professional quality paper under the supervision of a faculty member.

**The ARP versus a Thesis.** Whereas a traditional thesis is a scholarly project that focuses on an academic topic grounded in the literature and theory, the focus of an ARP is toward resolution of a practical problem related to the practice of digital forensics and/or cybersecurity.

**Nature of ARP Topics.** ARP topics will have practical relevance to digital forensics and/or cybersecurity and should make a potential contribution to practice. Examples of topics are development of a new open source forensic or cybersecurity tool, the validation or refinement of an existing tool, identification of a new vulnerability or forensic challenge, or a critical analysis of malware, forensic or security practice, regulation, law, policy, or protocol. The topic should be selected to blend with and further develop the student's interests, skill set and career goals but be framed with realistic resource and time limits in mind for completion within one semester.

**Qualifications to do an ARP.** To serve as an effective culminating experience in their program of study, students may request to register for FCM 791 in order to work on an ARP after they have completed at least 24 hours of coursework toward the degree, to include FCM 710, FCM 742, FCM 760 and FCM 752, with an overall GPA of 3.0 or above.

**Selection of the ARP Advisor and Faculty Readers.** The ARP is guided by the primary adviser with the final product reviewed and requiring approval by two other faculty readers. The ARP Advisor must be a full-time member of the D4CS faculty. Students may recruit an ARP Advisor on their own or seek the assistance of the Program Director in finding one. The second reader is normally recruited by the ARP Advisor and may be a full-time or adjunct member of the D4CS faculty member or a full-time faculty member from outside the D4CS faculty with the approval of the Program Director. The presumptive third reader of the ARP is the D4CS Program Director. When the Program Director is the primary ARP Advisor, the third reader will be a senior member of the D4CS Graduate Faculty to be
recruited by the D4CS Program Director. The final version of the ARP must be approved by all three committee members who denote their approval on an ARP signature page that becomes part of the ARP Paper.

**Registration for FCM 791, Prospectus Seminar.** FCM 791, Prospectus Seminar, does not normally appear on the Course Schedule. Instead registration for FCM 791 is handled as an Independent Study using a form provided in the College Compendium. Students who wish to register to do an ARP must announce their interest and request clearance to register for FCM 791 via email to the Program Director. Ideally, ARP students should make arrangements during the semester before they plan to work on the ARP in order to allow time for recruitment and/or assignment of an ARP Advisor. However, registration for FCM 791 is allowed up until the end of the second week of classes although in such cases there is no assurance that the ARP may be completed before the end of the semester. Registration for FCM 791 is normally for a Fall or Spring semester although students are free to work on the ARP over the winter and summer sessions. In cases where an advisor has not yet been assigned, the Program Director will be the instructor on the FCM 791 form; however, the ultimate ARP Advisor will be the instructor of record.

**Seminar Meetings.** In semesters where there are enough registrants in FCM 791 to convene a seminar, the Program Director may schedule occasional sessions to which ARP students are expected to attend. Otherwise, students may be called in for individual or group advising sessions by either the ARP Advisor and the Program Director which students are expected to attend.

**Ethical and CUNY Computer Use Issues.** Work on an ARP must comply with the D4CS Lab Use Policy. If ARP research entails the use of human subjects the research methodology needs to be vetted by CUNY's Human Research Protection Program (HRPP).

**Format of the ARP Report.** Findings from the ARP are reported in the format of a traditional academic paper using either APA or IEEE standards, a professional ‘white paper’, or as a journal article according to the stylistic preferences of the journal targeted for publication. The actual format of the paper (spacing, margins, etc.) follows the standard template for a thesis unless the ARP adviser approves an alternative. Any sources used in the project must be provided in a list of reference and cited according to either APA or IEEE standards, as preferred by the ARP Advisor or, alternatively, by the journal targeted for publication. All items in the list of references must be referenced in the paper and all citations in the paper must be noted in the list of references. Non-referenced but relevant sources may be included in a separate bibliography. The final copy of the ARP will include: a title page, a signature page, an abstract, a table of contents, a list of tables and figures, the text, any appendices, and a list of references.

**Editorial Qualify of the ARP.** The final ARP report approved by the Advisor and two other faculty readers is expected to meet conventional standards of professional writing. Editorial issues should be resolved by the student and the ARP Advisor before submission of the ARP Paper to the second and third readers.

**Submission and Approval of Final ARP Paper.** Upon approval of the ARP Paper by the ARP Advisor, the student must provide digital copies of the paper in editable format (e.g., rtf, docx, ost) to the two faculty readers on the ARP Committee, unless a Reader requests a paper copy. The student should not presume that approval by one faculty reader necessarily leads to approval by the next reader although preliminary discussion of requirements can avoid issues. Ultimately, the student needs to obtain the approval denoted by original signatures of each of the three members of the committee on
two signature pages that will become part of the final copy of the ARP Paper. Students who anticipate a need for more than two original signature pages should request them when submitting their ARP.

**Deadline for Submission of ARP.** The normal deadline for submission for final reading to the Program Director is the first day of the last week of classes. Any exceptions must be negotiated with the Program Director and allow time for readers to complete their review and for any possible revisions.

**Paper and Digital Submission of the ARP Paper.** Upon securing two ARP signature pages with signed approval by all three ARP Readers, students are required to prepare a digital version in pdf format without the signature page, and two spiral bound printed paper copies with a clear plastic cover with the signature page. One of these copies will be retained by the Program Director and the other will be submitted by the Program Director to the Dean of Graduate Studies as required. As well, students must submit a digital copy of the ARP Paper to the Program Director.

**Oral Presentation of ARP.** The ARP Committee may require a student to present the ARP findings in an open public presentation attended by the ARP Committee and other interested people. The time and place of the presentation will be arranged and announced with the assistance of the Program Director but will normally be scheduled during the final exam period in one of the D4CS labs.

**Posting of ARP's to D4CS Website.** Selected ARP Papers may be posted on the D4CS program website.

**Submission of Grade for ARP Completion.** When all conditions for completion of the ARP are met by the deadline for submission of grades, a grade of P for FCM 791 will be submitted to the Registrar. If the semester concludes without final approval and submission of required copies of the ARP in the designated format, a grade of INC will be submitted that will be resolved upon ultimate completion of ARP requirements. The Registrar requires students who extend their ARP work beyond one semester to be registered for either a regular course or for MAM 791 (Maintenance of Matriculation) for the term in which they apply for graduation.

**Authorship of Published ARP Papers.** A goal of the ARP is to see the student produce a publishable white paper, trade or journal article. The authorship of an ARP Paper submitted for publication will be consistent with customary disciplinary and professional norms.

**Posting of ARP on D4CS Website.** Selected ARP's may be selected by the Program Director to be posted on the D4CS program website. Students have the option of removing their name from the posting of the ARP but must advise the Program Director of that choice at the time of submission.

**Licensing of ARP Products.** Any software or hardware products developed as result of work on an ARP will be considered as open source products governed by the GNU General Public License (GPL) or CERN Open Hardware License (CERN OHL), respectively.

**Title and Signature Page Formats.** A template for the ARP title and signature pages is provided below and an editable copy is available on the D4CS program website [here](#).
[The Full Title of ARP]

An Applied Research Project

Presented in Partial Fulfillment of the Requirements

for the Master of Science in

Digital Forensics and Cybersecurity

John Jay College of Criminal Justice

City University of New York

[Author’s Full Name]

[Month & Year of Graduation]
  Spring: May
  Summer: September
  Fall: February

NOTE: This is a sample title page. Please remove this box and the brackets when typing your information.
This Applied Research Project has been presented to and accepted by faculty of the Digital Forensics and Cybersecurity Program, John Jay College of Criminal Justice of the City University of New York in partial fulfillment of the requirements for the Master of Science in Digital Forensics and Cybersecurity.

[Full Name]

Project Advisor

Signature

Date

[Full Name]

Second Reader

Signature

Date

[Full Name]

Program Director

Signature

Date

NOTE: This is a sample approval page. Please remove this box and brackets when typing your information. You need two signed approval pages when submitting the approved version of your ARP to the Digital Forensics and Cybersecurity Program Director.