College of Liberal Arts and Human Sciences (CLAHS)
Department of Political Science
<u>Integrated Security Minor (ISDA)</u>: **General Security, Securing Cyber, and Human Security Tracks**
Checksheet for students entering under UG catalog 2022-2023

Name:_____   Email:_____

Major:_____

PLEASE NOTE:
- There are 3 tracks/options to choose from in the integrated security pathways minor. Tracks are denoted below by **A. General Security Track, B. Securing Cyber Track, and C. Human Security Track.**
- All students in all 3 options must take the introductory (BIT/CS/PSCI 2164) and capstone (BIT/CS/PSCI 4164).
- This minor is open to all students regardless of major.
- No more that 50% of the graded course credit hours required for the Minor in Integrated Security may be double-counted by a student also enrolled in his/her major.
- Students must have an in-minor and overall GPA of 2.0 to graduate.

The Integrated Security Minor requires a minimum of 18-21 hours depending on minor track listed below: [Pathways courses are indicated and marked with an *][Courses with prerequisites are marked with #]

I. Introductory Course (3 credit hours)

*BIT/CS/PSCI 2164: Foundations of Contemporary Security Environments (Quantitative and
Computational Thinking (5f), Reasoning in the Social Sciences; Intercultural/Global Awareness)   _____(3)

II. Capstone Course (3 credit hours)

  *BIT/CS/PSCI 4164: Future of Security (Discourse, Ethics)#   _____(3)

III. Track/Option Courses (12-15 credit hours)   **Select from A. General Security Track, B. Securing Cyber Track, or C. Human Security Track**

  A. General Security Track – One Course from Each Block (12 credit hours)

Block 1
- CS 1014: Introduction to Computational Thinking (Quant & Comp)
- CS 1054: Introduction to Programming in Java
- CS 1064: Introduction to Programming in Python
- CS 1114: Introduction to Software Design
- *SOC 2104: Quantitative Approaches to Community Research (Quant & Comp.)
- *STS/HIST/SOC: 2604 Introduction to Data in Social Context (Humanities)
- *HD 3024: Community Analytics (Advanced/Applied Quant)
- *BIT 4604: Data Governance, Privacy, and Ethics (Humanities)#   _____(3)

Block 2 (Human Security)
- *HIST 1354: Conflict and Security in Modern East Asia (Humanities / Social Science)
- *PSVP 2044: Peace and Violence (Social Science)
- PSCI 3104: Security Studies: Theories and Concepts
- PSCI 3114: Global Security#
- PSCI 3134: Global Conflict and War
- PSCI 3184: Human Security#
- HIST 3714: War and Medicine
- BIT 4604: Data Governance, Privacy, and Ethics#   _____(3)

Block 3 (Cybersecurity)
- ECE 2174: Principles of Computer Systems
- *HIST 2716: History of Technology (Social Science)
- PSCI 3044: The Politics of Internet Governance #
- PSCI 3054: The Dark Web and Threat Analysis
- PSCI 4074: The Politics of Cybersecurity #
- * FIN 4014: Cyberlaw and Policy (Social Science)
- BIT 4614: Information Security #
- ECE 4560: Computer and Network Security Fundamentals #
- *CRIM 4474: Cyber Criminology (Social Science)
- CS 4264: Principles of Computer Security #   _____(3)

Block 4 (Environmental Security)
- AAEC 1264: Peace Economics (Social Science)
- *AAEC 3324: Environment Sustain Development Econ (Soc Sci / Identity & Equity)
- *GEOS 1034: Earth's Natural Hazards (Natural Sciences) #
- *GEOG 2004: Water, Environment (Social Sciences)
- GEOG 2034: Geography of Global Conflict
- *GEOG 3104: Environmental Problems (Social Sciences)
- PSCI 3344: Global Environmental Issues
- *STS 2454:   Science, Technology, and Environment (Humanities)   _____(3)

B.   Securing Cyber Track – One Course from Each Block (12 credit hours)

Block 1 (Cybersecurity Infrastructure)
- *CS 1014: Introduction to Computational Thinking (Quantitative and Computational Thinking (5f))
- CS 1064: Introduction to Programming in Python   _____(3)
- CS 1054: Introduction to Programming in Java
- CS 1114: Introduction to Software Design

Block 2 (Cybersecurity and Society)
- *CRIM 4474: Cyber Criminology (Social Science; Ethical Reasoning)
- GEOG 2034: Geography of Global Conflict
- *HIST 2716: History of Technology (Reasoning in the Social Sciences,)   _____(3)
- PSCI/IS 3054: The Dark Web and Threat Analysis
- PSCI 4074: The Politics of Cybersecurity #

Block 3 (Cybersecurity Risk and Governance)
- *FIN 4014: Cyberlaw and Policy (Reasoning in the Social Sciences OR Critical Thinking in the Humanities; Ethical Reasoning)
- *BIT 4604: Data Governance, Privacy, and Ethics (Humanities, Ethical Reasoning) #
- BIT/ACIS 4554: Networks and Telecommunications in Business
- BIT 4614: Information Security #   _____(3)
- ECE 4560: Computer and Network Security Fundamentals #
- BIT 4624: Cyber Security Analytics for Business #
- CS 4264: Principles of Computer Security #

Block 4 (One additional course from any of the above blocks in the Securing Cyber Track)   _____(3)

C.   Human Security Track – (9 Credit Hours from Block 1, 6 Credit hours from block 2)

Block 1 (Foundations of Human Security)
- *GEOG/IS/PSCI 2054: Introduction to World Politics (Reasoning in the Social Sciences)   _____(3)
- *PHIL 2304: Global Ethics (Critical Thinking in the Humanities, Ethics)   _____(3)
- IS/PSCI 3184: Human Security #   _____(3)

Block 2 (Exploring Human Security)
- AAEC 1264: Peace Economics (Social Science)
- PSVP 2044: Peace and Violence   _____(3)
- GEOG 2034: Geography of Global Conflict

- SOC 3004: Social Inequality #
- IS/PSCI 3104: Security Studies: Theories and Concepts
- IS/PSCI 3114: Global Security
- IS/PSCI 3134: Global Conflict and War
- IS/PSCI 3154: Topics in Global Public Policies
- IS/PSCI 3175: Global Development
- PSCI/UAP 3344: Global Environmental Issues
- IS/PSCI 3634: Human Rights
- HIST 3714: War and Medicine
- IS 4014: International Development
- IS/PSCI 4024: Seminar: Diplomacy and Security
- SOC 4444: Schools, Violence and Justice

_____(3)

GENERAL SECURITY TRACK NOTES:

- One course in addition to the two required courses must be a designated a Pathways course that meets a *third* Pathways objective.
  Example: If Foundations of Security is taken as a Pathways Computational Thinking course, and Security Solutions is taken as a Discourse Pathways course, then the student must choose his or her *third* Pathways course from the selected courses that meets a *third* Pathways objective, such as Reasoning in the Social Sciences, Critical Thinking in the Humanities, etc.
- In addition to the *Future of Security* course, 3 credit hours must be taken at the 3000/4000 level.
- # Some courses listed on this checksheet have prerequisites; please consult the University Course Catalog, or check with your advisor.
- No more than 50% of courses in the minor can be duplicated in the major.

SECURING CYBER TRACK NOTES:

- One course in addition to the two required courses must be a designated Pathways course that meets a third Pathways objective.
  Example: If Foundations of Security is taken as a Pathways Computational Thinking course, and Security Solutions is taken as a Discourse Pathways course, then the student must choose his or her third Pathways course from the selected courses that meets a third Pathways objective such as Reasoning in the Social Sciences, Critical Thinking in the Humanities, etc.
- # Some courses listed on this checksheet have prerequisites, please consult the University Course Catalog, or check with your advisor.
- No more than 50% of courses can count towards the student's major.

HUMAN SECURITY TRACK NOTES:

- One elective must be taken at the 3000/4000 level.
- # Some courses listed on this checksheet have prerequisites; please consult the University Course Catalog, or check with your advisor.
- No more than 50% of the courses may be duplicated in the major.

Declaring a Minor and Advising:

- Declare the Integrated Security Pathways Minor by emailing abrantly@vt.edu
- Please see an advisor in Political Science during pre-registration in 531 Major Williams for questions and assistance.
- Once a minor is declared, a student cannot graduate until she or he has either satisfied the requirements for the minor or withdrawn from the minor by notifying the IS-DA academic advisors in 531 Major Williams Hall.