#### UNIVERSITY OF MISSOURI

#### GEOSPATIAL INTELLIGENCE CERTIFICATION PROGRAM (GICP)

#### **GRADUATE COURSEWORK CHECKLIST**

student name:	Student Number:
Degree program:	Anticipated graduation date:
Email address:	

Instructions: This form should be initiated by the student at the time he/she begins the undergraduate certification program, and filed with the GICP Director (Dr. Matisziw). At least one semester prior to completing the required coursework for the certificate program, the student must notify the GICP Director of their progress in these classes.

Graduate: A total of 18 credit hours of graduate coursework (courses at or above the 7000 level) will be required to complete the graduate GICP. The coursework counting towards the 18 credit hours must average a GPA of 3.0 or higher. Graduate credit hours receiving a grade below a C cannot be counted toward the certificate.

Two courses must be completed from the Technical Core (Group A), one of three courses listed from the Analytical Core (Group B), one of four courses from Technical Electives (Group C), and one of nine courses from Analytic Electives (Group D). In addition, a student must complete the Capstone course 'The Geospatial Sciences in National Security'.

The two technical core courses are required because they provide foundational material in Geographic Information Science (GIS) and Remote Sensing (RS). The courses listed as technical electives provide more advanced material (image processing, spatial analysis, etc.) for GIS and RS analyses.

In addition to the 18 credit hours of required coursework, students are also required to participate in at least one 'What is GEOINT?' module colloquium event each semester. The colloquiums in these modules will serve as the introduction to GEOINT module requirement. Each colloquium will feature invited individual(s) from the GEOINT community who will introduce students to their understanding, involvement, and experiences in GEOINT.

As such, students will be continually exposed to past, current, and evolving perspectives as to what constitutes GEOINT throughout their participation in the program. The colloquiums will be recorded and made available to current and future GICP students. Students are expected to submit a written summary of the highlights from these discussions.

### **Graduate GICP Requirements:**

### Group A - Technical Core (6 credits - choose two courses)

GEOG 7830 Remote Sensing (3 credits)

GEOG 7840 Geographic Information Systems I (3 credits)

GEOG 7860 Advanced Remote Sensing (3 credits)

GEOG 7940 Advanced GIS (3 credits)

GEOG 8840 Seminar: Applied Remote Sensing (3 credits)

# **Group B - Analytical Core (3 credits - choose one)**

GEOG 7790 GIS for the Social Sciences (3 credits)
GEOG 7850 Transportation Geography (3 credits)

## Group C - Technical Electives (3 credits - choose one)

GEOG 7710 Spatial Analysis in Geography (3 credits)
GEOG 7740 Location Analysis & Site Selection (3 credits)
GEOG 7810 Landscape Ecology & GIS Analysis I (3 credits)

GEOG 7860 Advanced Remote Sensing (3 credits)

GEOG 7940 Geographic Information Systems II (3 credits)

IMSE 7001 Optimizing Modeling & Comp. Methods (3 credits)

PATA SCI 8613

DATA\_SCI 8612 Spatial and Geostatistical Analysis (3 credits)

DATA SCI 8614 Data Analytics for Applied Machine Learning (3 credits)

CEE 7720 Watershed Modeling Using GIS (3 credits)

## Group D - Analytic Electives (3 credits - choose one)

GEOG 8270 Seminar: Geography of the Middle East (3 credits)

GEOG 8710 Seminar: Drugs & Terrorism (3 credits)
GEOG 7770 Migration & Immigration (3 credits)

NU ENG 7330 Sci. and Tech. of Terrorism & Counter Terrorism (3 credits)

NU\_ENG 7331 Nonproliferation Issues for WMD (3 credits)

#### **Capstone experience - Communication & Legal**

GEOG 7130 Geospatial Sciences in National Security (3 credits)