INSTITUTIONAL REVIEW BOARD (IRB) RESEARCH APPLICATION

For IRB use only: Exempt_____   Expedited_____   Full-Board   **IRB #**   _____

All investigators listed on this application must have completed **at least one** institutional CITI Basic Course in Human Subjects Research (HSR) **before** submitting this application. To demonstrate completion of this training, each listed investigator must attach a completion certificate to Part IX of this application. The NSU IRB accepts **either** of the following CITI Basic Course completion certificates:

- ***Biomedical (Biomed) Comprehensive*** (approximately 3.5 to 4.5 hours to complete)
- ***Social-Behavioral-Educational (SBE) Comprehensive*** (approximately 3.5 to 4.5 hours to complete)

Additionally, if you have already completed either of these institutional Basic Courses from CITI for which the initial 3-year certificate has expired, the NSU IRB will accept either a *Biomed* or *SBE Refresher* completion certificate according to the following schedule: *Refresher Stage 1*, 3 years after completion of the Basic Course; *Refresher Stage 2*, 6 years after completion of the Basic Course, and *Refresher Stage 3* (*Biomed* only), 9 years after completion of the Basic Course. Also, any current or former IRB Member who has completed the more extensive *IRB Members* training (approximately 9 hours to complete) and is serving as an investigator on a study submitted for IRB review may attach this completion certificate to demonstrate completion of training. Note that some other HSR Basic Courses from CITI or CITI courses from other institutions **_MAY_** be recognized on a case-by-case basis; please contact the NSU IRB **_BEFORE_** applying with such credentials.

Notice to NSU investigators: To access CITI HSR course content, you must first [register for a new CITI account](#) using your NSU email address.

Notice to outside investigators: The NSU IRB will accept any of the aforementioned completion certificates from your home institution. If you do not have a home institution, you may use NSU's institutional CITI access, but you will bear the costs of the Basic Training courses (approximately $180 per course).

Please review the [NSU IRB Policies & Procedures](#) prior to completing this application**.** Please contact the IRB Chair at [irb@nsuok.edu](#) if you have questions about completing or submitting your research application.

RESEARCH **MUST NOT BE INITIATED** UNTIL YOU RECEIVE AN APPROVAL EMAIL FROM THE IRB
If you are notified that your application has been evaluated as acceptable contingent on certain changes, you must not start data collection until you have submitted the requested changes and received notification that the revised application has been fully approved. Starting data collection before receiving documentation of study approval constitutes research misconduct as defined in the university policies.

Project Title:

Measuring and Comparing Cyber Security Awareness among Undergraduate Students

*Note: Unless the use of deception is justified elsewhere in the application, the project title here should be consistent with the title used in the informed consent document(s).

PART I - INVESTIGATORS and KEY RESEARCH PERSONNEL (cut and paste sections for additional investigators)

The Principal Investigator is responsible for communicating the terms of the approved application to all investigators.

NOTE: ALL student-led projects must be supervised by a Faculty Sponsor.

PRINCIPAL INVESTIGATOR (PI)

Title (*select one*) [ ] Dr.   [ ] Mr.   [ ] Ms.   [X] Mx.

Full Name | Kris Example

Institutional email address | examplek@nsuok.edu

College/Department | College of Liberal Arts

Daytime Phone | 918-xxx-xxx

Institution and mailing address, if not affiliated with NSU |

Investigator Status (*select one*):

[ ] Faculty   [ ] Staff   [x] Graduate Student   [ ] Undergraduate Student   [ ] Other (specify)

FACULTY SPONSOR (FS) or CO-INVESTIGATOR (CI)

*The Faculty Sponsor is responsible for shepherding student investigators through all major steps of the research process. This can include suggesting methods and literature relevant to a study, reviewing research design to head-off possible obstacles to the recruitment of subjects or to the collection and analysis of data, keeping students aware of deadlines and requirements, and offering encouragement and guidance. As the first line of defense against common or easily avoidable application errors, Faculty Sponsors are expected to review student researcher protocol very carefully. Please check to make sure that the application is complete and detailed enough to give the IRB reviewers sufficient understanding of the research to provide for fair consideration. This sort of review should happen well **before** submission of the application to the IRB and will often be an iterative process involving several steps.*

NOTE: ALL student-led projects must be supervised by a Faculty Sponsor.

Title (*select one*) [x] Dr.   [ ] Mr.   [ ] Ms.   [ ] Mx.

Full Name | Pat Professorial

Institutional email address | professorialp@nsuok.edu

Institutional Review Board

College/Department | College of Liberal Arts

Daytime Phone | 918-yyy-yyyy

Institution and mailing address, if not affiliated with NSU |

Investigator Status (*select one*):

[x] Faculty   [ ] Staff   [ ] Graduate Student   [ ] Undergraduate Student   [ ] Other (specify)

[ ]

CO-INVESTIGATOR (CI)

Title (*select one*) [ ] Dr.   [ ] Mr.   [ ] Ms.   [ ] Mx.

Full Name |

Institutional email address |

College/Department |

Daytime Phone |

Institution and mailing address, if not affiliated with NSU |

Investigator Status (*select one*):

[ ] Faculty   [ ] Staff   [ ] Graduate Student   [ ] Undergraduate Student   [ ] Other (specify)

[ ]

Copy and paste the Co-Investigator block as needed for additional investigators.

PART II – FUNDING INFORMATION

Provide complete information about all funding sources for this research, including pending sources.

Attach a complete copy of the proposal submitted to the sponsor. Submission of your grant application is a regulatory requirement that will be retained as part of your IRB Research Application.

You must submit all necessary documentation for this application, such as consent forms and survey questionnaires, in addition to the copy of the grant, even if those forms are included in the grant application.

1) Check all of the appropriate boxes of funding sources for this research. Include pending funding source(s).

   [x] Not applicable *(skip to Part III)*

   [ ] University

   [ ] College

   [ ] Federal

   [ ] State

   [ ] Tribal

   [ ] Other *(please specify)*

2) Contract/Grant Title

3) Funding Source

4) P.I. of Grant or Contract

5) Sponsor

6) Contract/Grant Number *(if applicable)*

PART III – ADMINISTRATIVE DATA

1) Proposed start date [   ] or [x] upon IRB approval

*Approval will be granted for up to one year. After this time, request an extension by email to **irb@nsuok.edu**.*
*Note that the PI must retain ALL records of approved research **for three years** after the last approval end date.*

2) Project type

   ☐   Faculty research project

   ☐   Student research project   *1. Choose one:*   ☐ Undergraduate   ☒ Graduate

                                  2. Please specify: ☒ Course project

                                                         ☐ Honors project

                                                         ☐ Thesis project

                                                         ☐ Capstone project

                                                         ☐ Optometry project

3) ~~Will~~ **medical clearance or screening** be necessary for subject recruitment because of inclusion or exclusion criteria, administration of substances such as food or drugs, or physical exercise conditioning?

   ☒   No. ***Skip to Question 4.***

   ☐   Yes. *If yes, complete Questions a and b.*

        a. Explain how clearance will be obtained in the gray text box below.

        [   ]

        b. If a screening instrument is used, please attach a copy to the end of the application or copy the text of the instrument in the gray text box below. The text box will expand to accommodate your information.

        [   ]

4) **Study Sites** (select all that apply)

   Note that off-campus study sites for which organizational authorization is appropriate (e.g., a school, a business, etc.) will require separate site permission from a legally authorized representative sent to the NSU IRB before the study can begin. Some off-campus study sites may require an IRB Authorization Agreement (IAA) to be

established between the NSU IRB and another institution; please check with the study site first to know what is appropriate for research conducted there.

x	NSU Tahlequah

x	NSU Broken Arrow

x	NSU Muskogee

	Other. *Please specify in the text box below. Have email site permissions sent to irb@nsuok.edu.*

5) **Potentially Vulnerable Populations**

Indicate any groups included for recruitment as participants in the study; check all that apply. NSU IRB policy specifies that <u>all non-exempt research</u> and <u>some exempt research</u> applications including any group below will be reviewed by the full board. Note also that the inclusion of potentially vulnerable populations may require additional steps to be taken to ensure ethical treatment of participants, such as elimination of even the appearance of coercion to participate in the study. The recruitment of some potentially vulnerable populations may also require additional oversight. See item 8) below for exempt research categories.

	Children (under 18 years of age)

	Pregnant Women

	Elderly (65 & older)

	Psychologically Impaired

	Cognitively impaired

	Prisoners

	Native American Tribes and/or Tribal Organizations

	Students enrolled in a class in which the instructor is an investigator in the study

6) **Other Institutional or External Oversight**

Check the items listed below that apply to this research project. This information may be forwarded to the appropriate institutional personnel and/or committee(s).

| x | Not applicable |

| | NSUOCO (Optometry) Student Projects Committee |

| | Cherokee Nation IRB |

| | Indian Health Services Oklahoma Area Office IRB |

| | Other institutional oversight committee *(please specify in the text box below):* |

| |

7) **Conflict of Interest**

Please refer to NSU IRB Policies on [Conflict of Interest.](#) Additionally, NSU's [Policy for Responding to Allegations of Research Misconduct](#) defines Conflict of Interest as "the real or apparent interference of one person's interests with the interests of another person, where potential bias may occur due to prior or existing personal or professional relationships."

Is there any potential or perceived conflict of interest associated with this study between the researcher, sponsor and/or Northeastern State University?

| x | No |

| | Yes. *Please explain in the text box below. The IRB may require additional information.* |

| |

8) **Federally Exempt Research Claim**

VERY IMPORTANT: *If you believe that your study fits one of the eight so-called "exempt research" categories as defined by federal law in 45 CFR 46.104(d), please indicate which one below. Note that claiming an exemption on this application does NOT have any of the following effects:*

- *make your study exempt from IRB review or oversight,*
- *guarantee any sort of IRB approval, or*
- *exempt your study from applicable institutional policies.*

Nevertheless, making a relevant exemption claim here can increase the speed at which exempt research is recognized. Please be aware that the category descriptions below appear in summarized form; for more information on these categories, please refer to the federal government's more extensive Common Rule guidelines on [exempt research](#)*.*

☐	**Exemption 1:** Research will be conducted in established educational setting using normal educational practices; cannot include any other data collection procedures
x	**Exemption 2:** Research will involve only educational tests, surveys, interviews, or observations of public behavior; cannot include children if investigators participate in the activity; cannot include children if personally identifiable information is collected; may be subject to limited IRB review
☐	**Exemption 3:** Research will involve only benign behavioral interventions with adult participants; cannot include children; may be subject to limited IRB review
☐	**Exemption 4:** Research will involve the collection or study of data that is either publicly available or recorded in such a way that (under most circumstances) subjects cannot be identified; may be subject to limited IRB review
☐	**Exemption 5:** Research—generally federal in nature—will study, evaluate, improve, or examine a public benefit or service
☐	**Exemption 6:** Research will involve only taste or food quality evaluations
☐	**Exemption 7:** Research will involve the storage or maintenance of identifiable data for secondary research use (see Exemption 8); broad consent and limited IRB review are required
☐	**Exemption 8:** Research will involve the secondary use of identifiable data (see Exemption 7); broad consent and limited IRB review are required

PART IV – SUMMARY OF STUDY ACTIVITIES

Submission of a copy of a grant application does not replace completion of this section. Please respond to each item. Incomplete forms will be returned. The text fields will expand as you type.

*Note that, in most cases, the IRB will require **at least a full paragraph** in each section to develop an understanding of the study sufficient for an effective review.*

1) Provide background information for the study including the purpose of the proposed study, research question, hypotheses and any other relevant information.

> Several studies (e.g., Lee, 2020; Smith & Jones, 2019; Zabryskie, 2018, 2021, in press) have found that adult university students who take exclusively online courses are more susceptible to LMS- and videoconferencing-based identity-theft scams, phishing attempts, and even ransomware attacks than adult students at the same institutions who take either a mix of online and face-to-face courses or who take no online courses at all. It is hypothesized that the reason for this increased susceptibility is the level of comfort online students have in their educational technologies and the degree of trust they place in individuals who purport to be faculty, staff, or fellow students from their home institution but who are ultimately unknown to them personally. While these studies have looked at universities all across the United States, including in Oklahoma (cf. Zabryskie, in press), they have focused so far on either small private institutions with undergraduate enrollments less than 5,000 (e.g., Lee, 2020; Smith & Jones, 2019) or public institutions with undergraduate enrollments greater than 10,000 (Zabryskie, 2018, 2021, in press). Moreover, of those studies conducted at public universities, none of those institutions studied have a baccalaureate-level degree in Cyber Security or a related field. It stands to reason, then, that the results of a methodologically and statistically rigorous replication study conducted at a public institution with an undergraduate enrollment between 5,000 and 10,000 and at which a baccalaureate-level degree in Cyber Security is possible could serve to fill an important knowledge gap within the scholarly literature. NSU is just such an institution and one with a robust commitment to online education.
>
> For this study, I will replicate Zabryskie's (2018, 2021, in press) Student Cyber Awareness Survey among students at all three campuses at NSU, including online-only, face-to-face-only, and mixed-online students. This survey measures three different student cybersecurity awareness factors and then ranks their institutions on a standardized nine-point scale known as UCyberKnow, which is intended to become an industry and governmental standard in the next decade. I will then use ANCOVA to analyze the NSU's UCyberKnow ranking in terms of various demographic factors, including especially the percentage of NSU courses taken online. Additionally, I will compare NSU's UCyberKnow ranking to those of two other Oklahoma institutions whose rankings are reported in the scholarly literature (i.e., Zabryskie, in press). My three-part hypothesis relating to NSU's student body is as follows:
>
> - NSU's mid-sized student body is less susceptible overall to the sorts of attacks discussed elsewhere in the scholarly literature owing to relative numbers of students studying Cyber Security.
> - NSU's online-only students are less susceptible to the sorts of attacks discussed elsewhere in the scholarly literature than other online-only students at Oklahoma institutions owing to the greater emphasis overall at NSU on cybersecurity awareness.
>
> NSU's face-to-face and mixed online students are less susceptible to the sorts of attacks discussed elsewhere in the scholarly literature than other online-only students at Oklahoma institutions owing to the greater emphasis overall at NSU on cybersecurity awareness.

2) Describe the methods to be used in this study, including the research design, the nature of measurements or observations to be used as data, how data will be collected, and how data will be analyzed. The methods must be described in sufficient detail for the IRB to characterize any human subjects-based study as a "systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge" according to 45 CFR 46.102(l).

This study will replicate Zabryskie's (2018, 2021, in press) Student Cyber Awareness Survey methodology with a different research population and sample. Specifically, the population will consist of undergraduate students of any major above the age of 18 at any of NSU's campuses. Participants will be recruited via a recruitment script distributed as part of a student-wide email campaign; the PI will not have access to any student email addresses, and recruitment will be handled exclusively by the Office of Institutional Effectiveness, with which the PI has already discussed student recruitment, and which has preliminarily agreed to handle such email-based recruitment pending IRB approval of the proposed research. Participants will follow a link in the recruitment script to a Checkbox-mediated online survey instrument, beginning with an electronic cover letter in lieu of a pen-and-paper Informed Consent Form. Advancing to the first page of the questionnaire items will indicate informed consent on the part of the participant. There, participants will complete the 45-item Student Cyber Awareness Survey instrument, which should take no more than 20 total minutes; the instrument also contains a 15-item demographic questionnaire. Because the instrument consists entirely of multiple choice and Likert scale items, no personally identifying information will be collected. The link will be active for six weeks only, as is standard for this survey. Participant responses will be saved online via Checkbox during this time, but will be downloaded as an MS Excel file to a password-protected computer in the Faculty Sponsor's locked NSU office upon the closing of the participation window. All analysis will occur in this office under the direct supervision of the Faculty Sponsor.

The aggregated results of the instrument will then be divided into two components, the cyber awareness data, which contains the three dependent awareness variables and the demographic data containing the independent demographic variables, including especially the percentage of NSU courses taken online. Because it is impossible to know from the outset which demographic cells will have sufficient data for comparison, at present, the only demographic variables intended for comparison at this time will be sex, class standing (i.e., freshman, sophomore, junior, and senior), and online course percentage. Using SPSS, the data will then be analyzed by way of a one-way ANCOVA (ANalysis of COVAriance) with post-hoc Tukey HSD (Honestly Significant Difference) to test the three hypotheses; however, other analyses and results may also be available depending on the rate of participation. Because the data are entirely anonymous, no follow-up procedures are possible.

3) Describe the potential research subjects (participants). Explain your relationship to them, if applicable.

Potential research subjects will consist of currently enrolled NSU students aged 18 and above at any of the three campuses; this includes online students. It is possible that the PI or the FS will know some of these participants, but, because the survey techniques employed are entirely anonymous and no personally identifying information will be collected, there will be no way to know who is or who is not in the sample.

4) Present a step-by-step description of the procedures that you will ask participants to complete, including the method of administration (e.g. *telephone* interview, *online* test, *paper* survey).

Review the IRB policies regarding [internet research](), if applicable.

In this online study, students will first receive a recruitment email from the Office of Institutional Effectiveness. Students wishing to learn more will then be directed to a Checkbox-based survey instrument online, the first page of which is an electronic cover letter functioning as an Informed Consent Form. Upon advancing to the first page of the instrument to indicate consent, participants will first complete a 15-item demographic questionnaire before completing a 30-item cyber awareness questionnaire; both are standard components of Zabryskie's Student Cyber Awareness Survey instrument. Upon completion of the survey instrument, participants will submit their results, which will be stored online for upwards of two months, and aggregate results will then be downloaded to a password-protected computer in the FS's locked NSU office for analysis.

Note that there will be no items on the questionnaire coded as 'required,' and participants are free to complete as many or as few as they wish.

5) Indicate the approximate amount of time it will take participants to complete each step of the procedure, including the time to complete any data collection instruments. Note any tasks that participants might be asked to complete multiple times.

> It is estimated that participants will spend no more than 20 minutes completing all tasks; on average, the PI and FS have completed trial submissions in 15 minutes, but no more than 20 minutes, and no less than 5 minutes. The breakdown for tasks is as follows:
>
> - Indicating informed consent by way of the electronic cover letter (2-3 minutes)
> - Completing the 15-item demographic questionnaire (3-5 minutes)
>
> Completing the 30-item cyber awareness questionnaire (5-12 minutes)

6) Attach a copy of each study document or copy the text of the document below. This includes all surveys, tests, interview or observation protocols, etc. If the survey is being done online, provide an active link for reviewers to see, but the complete text of all materials must *also* be attached at the end of the application.

> Link:
>
> www.checkbox.com/XXXXXXXXX
>
> Instrument:
>
> *[CUT-AND-PASTE INSTRUMENT OMITTED FOR DEMONSTRATION PURPOSES, BUT MUST BE INCLUDED IN ACTUAL APPLICATION]*

7) Describe the recruitment procedures. Explain who will approach potential participants and what will be done to protect the individual's privacy in this process.

> Recruitment will be conducted entirely by way of NSU's Office of Institutional Effectiveness. Upon IRB approval of the proposed research, PI will provide this office with the approved recruitment script, including the live link to the online survey instrument. The Office of Institutional Effectiveness will then forward the recruitment script to all currently enrolled NSU undergraduate students. Note that only students aged 18 and above can participate in this study. Handling recruitment via this office will protect the individual participants' privacy to such an extent that it will be impossible to know who among the research population will be in the sample or not in the sample; it is entirely anonymous.

8) Attach a copy of any material used to recruit subjects or copy the text of those materials below. Materials can include advertisements, hand-outs, telephone scripts, verbal recruitment scripts, cover letters, etc.

> Hello, fellow student!
>
> My name is Kris Example, a graduate student at NSU conducting some research for a course project for Dr. Pat Professorial. If you're 18 or older and a currently enrolled NSU student, then I would like to invite you to participate in my research project on cyber security awareness among students. Your participation in the research project is entirely voluntary and would involve you completing an approximately 20-minute online questionnaire. You'll be asked 15 questions about your background, but there's nothing that would identify you personally. Afterwards, you'll be asked to complete 30 questions about your awareness of cyber security as a student. If you are interested, the link to the questionnaire is www.checkbox.com/XXXXXXXXX. By participating, you will not only be helping me to learn how NSU stacks up against other universities in terms of student cybersecurity awareness, but you'll also be reminding yourself of the sorts of online threats that are currently making their rounds, learning about our Cyber Security degree program, and contributing to the

scholarly understanding of cyber security among university students. Please take a few moments to contribute. Thanks!

Sincerely,

Kris Example

(1st year graduate student, College of Liberal Arts)

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9) How would you characterize the risk level of this study? Note that 35 CRF 36.102(j) defines *minimal risk* this way: *"Minimal risk* means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests."

| x | No greater than minimal risk |

| | Greater than minimal risk |

PART V – PRIVACY PROCEDURES

1) During either participant recruitment or data collection and analysis, will you collect or record any direct identifiers (names, social security numbers, addresses, telephone numbers, e-mail addresses, facial photography/videography, etc.)?

   Note that the IRB expects that all steps will have been taken to eliminate the need for the collection or recording of direct identifiers.

   [x] No. **S*kip to Question 2.***

   [ ] Yes. *Complete Questions a-e.*

   a. Explain why it is necessary to record findings using these identifiers.

   b. Describe the coding system you will use to protect against disclosure of these identifiers.

   c. Describe how subject identifiers will be maintained or destroyed after the study is completed.

   d. Will you retain a link between the study code numbers and direct identifiers after the data collection is complete?

   *Note that the PI must retain ALL records of approved research **for three years** after the last approval end date.*

   [ ] No

   [ ] Yes. *If yes, explain why this is necessary and state how long you will keep this link.*

   e. Will you provide a link or identifier to anyone outside the research team?

   [ ] No

   [ ] Yes. *If yes, explain why and to whom.*

2) In what format(s) will data be collected and stored (handwritten field notes, electronic spreadsheets, online survey software/program, video recordings, etc.)?

> The results will be stored temporarily within Checkbox as anonymous cloud-based survey response data; during this time, the PI and FS will have access to the data but will only use this access to determine if participation is still actively occurring. Upon the closing of the six-week participation window, the PI will download the data as an MS. Excel spreadsheet file directly to a password-protected work computer in the FS's locked NSU office and delete the cloud-based version. The PI will analyze the data exclusively from this secure computer under the direct supervision of the FS.

3) Do your data formats include audio, photographic, or video recordings?

   | x | No. |

   | | Yes. |

   *If yes, describe the general recording setting, how identities will be protected in recordings, how much of the participant's person will appear in images (if applicable), how recordings will be used, how recordings will be stored and/or destroyed, and how non-participants will be identified and excluded from recordings. This information must **also** appear in the informed consent document(s), wherein it is recommended that a participant may opt out of such recordings regardless of other forms of participation.*

4) Where will the data be stored, and who has access to it during storage? What security provisions will be taken to protect these data (password protected computer or files, encryption, locked file cabinet, etc.)? Address each data source separately.

   *Note that the PI must retain ALL records of approved research **for three years** after the last approval end date.*

   > After download, the data—all of which is anonymous—will be stored on a password-protected work computer in the FS's locked NSU office. The PI will analyze the data exclusively from this computer under the direct supervision of the FS. No one else will have access to the data during this time.

5) If data will be destroyed, please provide an estimated month and year for when this will occur. Address each data source separately. Note that you must provide justification if you wish to retain identifiable data securely beyond three years after the last approval end date.

   *Note that the PI must retain ALL records of approved research **for three years** after the last approval end date.*

   > All data will remain on the FS's work computer indefinitely. Because it is entirely anonymous yet potentially rich enough to be a source for continued analysis long after the three-year retention period (which is estimated to be March of 20XX), it will be retained for future research purposes. Note that, upon the graduation of the PI (estimated to occur in May of 20XX), additional student or faculty researchers may work with the data, which, again, are entirely anonymous.

6) If data will be destroyed, describe how this will be done. Address each data source separately.

   > N/A; the data will not be destroyed.

7) Will you place a copy of the consent form or other research study information in the subject's medical, personal or educational record? This information should be clearly explained in the consent document and/or process.

| x | No |

| | Yes. *Explain why this is necessary.* |

8) Will any record of the subject's participation in this study be made available to his or her supervisor, teacher, or employer?

| x | No |

| | Yes. *Explain why this is necessary.* |

9) Will you require a [Federal Certificate of Confidentiality](#)? Certificates of Confidentiality are issued by the National Institutes of Health (NIH) to protect identifiable research information from forced disclosure.

| x | No |

| | Yes. *Explain why this is necessary.* |

PART VI – INFORMED CONSENT INFORMATION

View sample informed consent documents on the [Resources for Researchers](#) page.

1) **Informed Consent**: Please cut and paste all consent documents or copy the text of these documents in the box below.

   a. If subject participation is anonymous (i.e., not even the investigators can determine whether or not someone from the research population is a participant in the study), then the IRB recommends including the text of an information sheet or cover letter containing all required elements of informed consent.

   b. If subject participation is not anonymous, you must include the text to the consent form.

      i. For adult participants, include the text for the consent form.

      ii. For children and youth participants, provide both the text for the assent form for the child/youth *and* the text of a permission form for the parents.

Kris Example

College of Liberal Arts

918-XXX-XXXX

examplek@nsuok.edu

March 17, 20XX

Dear Student:

I am conducting a research study on student awareness of cyber security. The purpose of this study is to determine how NSU students measure up against students of other universities in terms of this awareness. Your response to this online questionnaire will help provide that measurement. You have been recruited because you are a currently enrolled student at Northeastern State University (NSU) and can offer your own insights into this rapidly growing issue.

I am asking current NSU students aged 18 and older to complete and submit the questionnaire. Most answers are multiple choice, and some will ask you to choose a response from a scale from 'I disagree entirely' to 'I agree entirely.' There are only 45 items on the questionnaire, which should take no more than 20 minutes to complete. The first 15 items will ask you about what kind of student you are at NSU, and the remaining 30 will ask you about your awareness of cyber security issues; along the way, you'll also see some information regarding our Cyber Security degree here at NSU. Please complete and submit the questionnaire by May 8. Clicking the link below to advance to the first page of the questionnaire implies your consent to participate in this research study. If you do not consent to participate, no further action on your part is required.

There are no repercussions for not participating in this study and your participation is completely voluntary. You have the option to skip any questions you do not want to answer. If you decide not to participate after starting the questionnaire, simply close the browser. The information you supply on this questionnaire is completely anonymous. Your identity is in no way associated with your answers. The cost to participate is simply 20 minutes or less of your time. The risks to you of participating in this research do not exceed those you would normally encounter in daily life. There is no compensation for participating in this study, but your contribution could help us learn more about student awareness of cyber security. In turn, this could help shape a better future for all university students and scholars in this field of study.

The Institutional Review Board (IRB) at Northeastern State University has approved this study. If you have any questions regarding your rights as a participant in this study, feel free to contact the IRB. The IRB Chair can be reached at 918-XXX-XXXX or via email at irb@nsuok.edu. Alternatively, visit their web site at http://offices.nsuok.edu/irb/.

If you have any questions about my research, please contact me using the information above or my Faculty Sponsor, Dr. Pat Professorial, at 918-XXX-XXXX or professorialp@nsuok.edu. Your response to this questionnaire can make a difference.

Thank you for your time,

Kris Example

[Advancing to the first page of the questionnaire implies your consent to participate in this research project.]

PART VII – RISKS AND BENEFITS

1) Indicate if the research involves any of the following possible risks or harms to subjects. Check all that apply. **If none of these risks apply, you may skip Part VII 1a to 1c and complete Part VII 2 and 3.**

☐ Use of confidential records (education or medical records, etc.)

☐ Manipulation of psychological or social variables such as sensory deprivation, social isolation, or stressors

☐ Probing for personal or sensitive information in surveys or interviews

☐ Presentation of materials which subjects might consider sensitive, offensive, threatening or degrading

☐ Possible invasion of privacy of subject or family

☐ Risk of physical injury or harm

☐ Social or economic risk

☐ Legal risk

☐ Employment/occupational risk

☐ Use of deception (if yes, complete 1c)

☐ Other risks, specify:

a) Describe the nature and degree of the risk of harm checked above. The described risks/harms must be disclosed in the consent form.

b) Explain what steps will be taken to minimize risks or harms and to protect participants' welfare. If the research includes potentially vulnerable populations (Part III-V), identify each group and answer this question for each group.

c) If **deception** is used, describe the use of deception in detail. Include the debriefing process and the debriefing script. The principal investigator must offer the participant the opportunity to withdraw his/her data after finding out that deception was used in the study.

2) Describe the anticipated **benefits** of this research to the individual subject or to others that may reasonably be expected from the research.

Note that this section cannot be left blank.

> It is hoped that students participating in the Student Cyber Awareness Survey will be reminded of the very real threats that exist in the online environment and also of the availability of a Cyber Security degree program at NSU, both of which could benefit both the student and the university. Because the students will eventually leave NSU, the increased awareness of cyber security issues could contribute somewhat to the overall security of northeastern Oklahoma.

3) What are the broader anticipated **benefits** of this research and how will they be realized?

*Note that **NEITHER** of the individual sub-items in this section can be left blank.*

a) Describe the anticipated **benefits** of this research for society and explain how the benefits outweigh the risks.

> It is hoped that the results of this study will contribute significantly to the growing field of cybersecurity, particularly as it relates to public universities with mid-sized undergraduate enrollment and the degree programs they offer. Because the PI and FS plan to make the results of the study known at an important professional and academic conference and possibly also in a scholarly journal, the impact of this study could be substantial and relatively sudden.

b) Describe the steps that will be taken to **realize** the aforementioned societal benefits of this research and to ensure that this research will contribute to generalizable knowledge. For example, please indicate here any intention to share the results or findings of this research at a conference, in a publication, in some other publicly available form, etc.

*Note that, to fall under the purview of the IRB, a proposed study **must** fit the federal definition of 'research' as found in [45 CFR 46.102](I): "Research means a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge."*

> The results of the study will be presented at the next available Southwest Cyber Command Conference, an annual gathering of cybersecurity scholars and professionals usually held in Oklahoma City in early November. Additionally, depending on the significance of the findings, a co-authored (PI and FS) publication in a scholarly journal may also be sought.
>
> It is hoped that students participating in the Student Cyber Awareness Survey will be reminded of the very real threats that exist in the online environment and also of the availability of a Cyber Security degree program at NSU, both of which could benefit both the student and the university. Moreover, it is hoped that the results of this study will contribute significantly to the growing field of cybersecurity, particularly as it relates to public universities with mid-sized undergraduate enrollment and the degree programs they offer.

PART VIII – COMPENSATION INFORMATION

Will any compensation or inducements (monetary inducements, extra credit, etc.) be offered to the subjects for their participation?

☐ No

☐ Yes

If yes, describe the inducements in the next text box. Include a statement in the informed consent document explaining how compensation will be handled in the event the participant withdraws from the study.

PART IX – CITI TRAINING COMPLETION CERTIFICATE VERIFICATION

For each investigator listed in this application, please COPY AND PASTE *only* the blue '**Verify at**' links from the completion certificates of any allowable CITI Basic Course. Note: No screen shots or other images of all or part of the completion certificates will be accepted.

Please see p. 1 of this application for details about which certificates are allowable. Copy and paste the Co- blocks as needed for additional investigators.

'VERIFY AT' LINK FROM CITI HSR BASIC COURSE COMPLETION CERTIFICATE

Principal Investigator: ['VERIFY AT' LINK OMITTED FOR DEMONSTRATION PURPOSES, BUT MUST BE INCLUDED IN ACTUAL APPLICATION]

Faculty Sponsor: ['VERIFY AT' LINK OMITTED FOR DEMONSTRATION PURPOSES, BUT MUST BE INCLUDED IN ACTUAL APPLICATION]

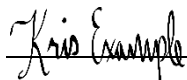*Co-Investigator:*

PART X – OTHER ATTACHMENTS

Please attach here any files referenced elsewhere in the application for which no more appropriate place for attachment is available.

N/A

PART XI – SIGNATURES

PRINCIPAL INVESTIGATOR (PI)

By including my signature (an electronic signature will suffice) on this research application, I certify that I am knowledgeable about the regulations and policies governing research with human subjects and have sufficient training and experience to conduct this particular study in accordance with the approved research protocol.

Kris Example   03/17/20xx

Principal Investigator   *Date (MM/DD/YYYY)*

CO-INVESTIGATOR (CI)

By including my signature (an electronic signature will suffice) on this research application, I certify that I am knowledgeable about the regulations and policies governing research with human subjects and have sufficient training and experience to conduct this particular study in accordance with the approved research protocol.
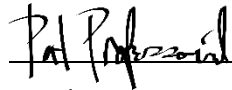
_____   _____

Co-Investigator   *Date (MM/DD/YYYY)*

Copy and paste the Co-Investigator block as needed for additional investigators.

FACULTY SPONSOR (FS)

By including my signature (an electronic signature will suffice) on this research application, I certify that I am knowledgeable about the regulations and policies governing research with human subjects, have sufficient training and experience to supervise any student in this study in accordance with all conditions for approval, and have personally reviewed this application and approve its content. I also certify that it is my responsibility to provide adequate supervision of any student investigators in this study

_____   _____03/17/20xx_____

Faculty Sponsor   *Date (MM/DD/YYYY)*

Submitting your Application

Submit only ONE file as a <u>Word document</u>. Emails with more than one file will not be accepted, nor will shared Google Docs or PDF files. If you have separate PDF files, Word files, etc., copy and paste them to this Word document.

Save this file (in Microsoft Word format) and send it **as a downloadable email attachment** to: irb@nsuok.edu

As part of the application form, include *as appropriate*

- Solicitation Announcements

- Recruitment materials

- Data Collection Instruments (i.e. Interview questions/Questionnaires/Survey(s))

- Informed Consent Documents (*Parental/Legal Guardian Permission Form, Child Assent Form)*

- Medical Screening Instrument

- Proposal and/or Contract or Grant

- Debriefing Script (for studies involving deception)

You can also copy and paste them to Part X of this document.

Below, check off any documents that will be *mailed* to the IRB care of NSU Academic Affairs at the following address:

Office of Academic Affairs

Attn: Institutional Review Board

Northeastern State University

Administration 119

600 N Grand Ave

Tahlequah, OK 74464, USA

☐ Original hardcopy or faxed letter of approval from off-campus study sites (e.g., public schools) or email from appropriate representative originating from his/her official email account in the capacity to grant permission.

___ Other: (if applicable) _____

Upon receipt of the emailed application, the person submitting the application will receive an automated confirmation of receipt.