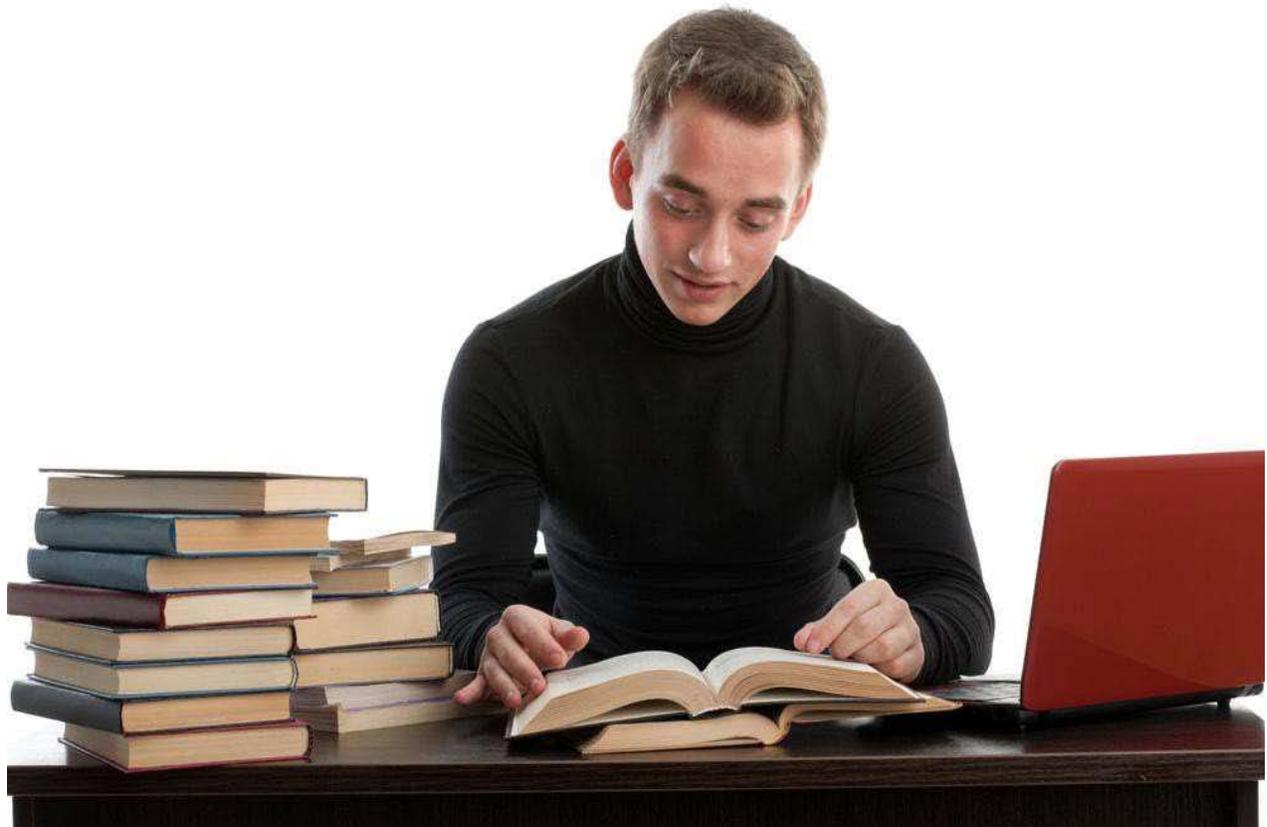


**Student Guide to the MPH Culminating Experience/Thesis**  
The University of Texas School of Public Health at Houston  
2017-2018



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## OVERVIEW

A culminating experience (CE) is required by the Council on Education for Public Health, the accrediting body of U.S. schools of public health, for all students completing a Master of Public Health (MPH) degree. The culminating experience “requires a student to synthesize and integrate the knowledge acquired in coursework and other learning experiences and to apply theory and principles in a situation that approximates some aspect of professional practice” (Council on Education for Public Health, Criterion V.B., 2004). Hence, it is designed to ensure that all MPH graduates can integrate and apply the knowledge and skills that they have gained during their graduate training.

Specifically, through the CE the student demonstrates his/her ability to:

- synthesize public health concepts as they relate to a particular topic
- communicate public health information in writing (including appropriate citations)
- communicate public health information orally (including organization of material and presentation effectiveness)
- identify, access, and critically evaluate public health information

Students at UTSPH have two options for their culminating experience:

- 1) A written paper that presents an inquiry into a public health issue or problem. This paper may take many forms including, but not limited to:
  - a. Traditional research thesis
  - b. Systematic review of the literature
  - c. Policy analysis or practice issue
  - d. Practice-based report
- 2) A capstone course

Additional details for the written and capstone course CE options are provided in the following sections of this document.

Students may count 3-6 hours towards the combination of their CE and practicum. Credits for the CE are usually completed during the student’s final year of study.

Both CE options are available to all MPH students. Prior to making a decision about which option to pursue, students should: learn more about each option; consider their own strengths and weaknesses, public health interests, career goals, and plans for further graduate education; and discuss the options with their MPH advisor.

## THE MPH CAPSTONE COURSE

The CE capstone course is a three-credit class that required the student to synthesize and integrate information, as well as problem-solve. Prior to taking the capstone course, students must have completed the five core courses (or have a waiver on file) and at least 30 semester credit hours. In addition, they must have completed or be concurrently enrolled in the practicum.

## THE MPH WRITTEN CULMINATING EXPERIENCE (WCE)

The WCE provides the opportunity to develop expertise in a specific topic area and to make a contribution to the field of public health. For example, the WCE could result in the publication of a manuscript or the development of a public health program or intervention. Establishing expertise in a specific topic area and producing concrete evidence of that expertise can be an important first step in establishing your career in public health. Students who plan to pursue further academic studies or for whom peer-reviewed publication is important are encouraged to consider the WCE option.

This guide provides an overview of the steps required to complete the WCE.

### I. WHAT TYPES OF PROJECTS CAN BE USED FOR THE WCE?

Each WCE project is unique. Whether it is the topic itself, use of a new study design, analysis of new data, application of a new method, or the synthesis of existing literature from a new perspective, all WCE projects must include an original aspect. However, many of the WCE projects undertaken by MPH students at UTSPH fall into one of four general categories:

#### ***Research Thesis***

The traditional thesis option involves investigation of a scientific question using public health methods (e.g. epidemiology, biostatistics, environmental science, behavioral science, management and policy science). The thesis should address an important public health issue and provide a unique contribution to the overall literature on the topic. The specific question to be addressed may be an original question developed by the student or it may be developed in collaboration with the advisory committee and data may be collected as part of the project or be derived from an existing data source. In some cases, simulated data may be used (e.g. to compare analytical strategies).

#### ***Systematic Review***

A systematic review involves the investigation of a specific public health question using published studies. The study question is something that has been addressed in the literature, but has not been resolved (e.g. results have been equivocal or inconsistent across studies). The data for a systematic review is obtained using a formal strategy to search the literature and a structured approach to identifying relevant features of each included study. Various qualitative and quantitative approaches can be used for the systemic review. Table 1 (Supplemental Appendix) illustrates the elements of a systematic review as compared to a research thesis.

The UTSPH library provides several resources related to systematic reviews:

<https://sph.uth.edu/current-students/library/guides-to-using-library-resources/>

### **Policy Analysis or Practice Issue**

A policy analysis involves the review and synthesis of data relevant to a defined public health policy or practice issue, and application of the gained knowledge toward a practical solution to, or recommendations regarding that issue. The data for a policy/practice WCE may be collected as part of the project, or derived from existing data sources, including the published literature and other documents that are in the public domain.

### **Public Health Practice-Based CE**

A public health practice-based WCE is designed to focus on a specific public health issue faced by the practice community. For example, a public health practice WCE could describe the implementation of a community-based intervention for a particular agency. The project described within the WCE can, but does not have to be, an extension of a student's practicum. *However, it cannot be a description of the practicum experience.* When the WCE is based on the practicum experience, it may involve an extension of the practicum project, and additional contact time with the practice agency or sponsor.

Not all WCE projects fit neatly into one of the categories described above. Examples of many different types of WCE proposal can be found in the Office of Academic Affairs and Student Services, 713-500-9055, RAS E-229, or by contacting Brooke Burns at:

[Brooke.Burns@uth.tmc.edu](mailto:Brooke.Burns@uth.tmc.edu).

Depending on your background and the type of WCE you decide to pursue, you may want to take a course that will help you to prepare for your project. For example, a proposal writing course that aims to develop scientific/technical writing skills, a course that focuses on systematic reviews, or an independent study class to learn more about your particular topic. However, in most cases it is not necessary to take such courses before you begin your WCE.

## **II. WHAT IS THE ROLE OF THE STUDENT'S WCE COMMITTEE?**

The student's WCE committee includes the student, his/her academic advisor, and one additional member who will provide expertise in support of the project. The additional member is **chosen by the student** in consultation with their academic advisor. Additional members can come from within or outside of the student's primary discipline, as well as from within or outside of UTSPH.

Students who elect a concentration must have a committee member who also represents the concentration. This may be the academic advisor or the additional committee member, if one or both represents the concentration. Otherwise, an additional committee member representing the concentration must be added to the committee.

Any of the advisory committee members may serve as the Supervisor for the project.

The Academic advisor serves as the Chair of the WCE committee.

Additional details about the WCE committee composition for can be found at:

<https://sph.uth.tmc.edu/academics/degree-programs/>.

Students should also check their Department website for information specific to their degree program. To **add or change a committee member**, forms must be submitted to Office of Academic Affairs and Student Services, (713) 500-9031, RAS E-201, or to your campus Staff Advisor. Forms to add committee members are available at: <https://sph.uth.tmc.edu/current-students/student-forms/>

***What is the student's role on the committee?*** As a member of the committee, the student should coordinate committee meetings. Although students meet with their academic advisory committee twice each year, these meetings are generally insufficient for discussing the details of the WCE. Consequently, additional meetings, specifically for review and discussion of the WCE, are generally required. Such meetings can save the student and other committee members time and minimize the potential for confusion that can occur when the student must try to integrate multiple (and sometimes conflicting) opinions without the benefit of everyone talking together. The number and duration of such meetings will depend on the specific project and committee. In general, it may be helpful to have meetings:

- prior to writing the proposal
- after all committee members have read a final, or near-final, version of the proposal
- after all committee members have read a final, or near-final, version of the written WCE

Committee meetings are typically scheduled several weeks in advance in order to accommodate the committee members' other professional obligations.

The student should also coordinate meetings with individual committee members as needed. In general, the student should meet with the project supervisor at least every other week. The frequency of meetings with other committee members will depend on their role on the project.

***What are the roles of the other committee members?*** The committee members serve many different roles including: scientific advisor, editor, mentor and advocate. Individual members may serve in one or more of these roles. The committee or individual committee members work with the student to develop the proposal, obtain necessary institutional approvals (e.g. IRB, animal welfare), and assist with the execution of the proposed project and completion of the final WCE document. In general, committee members should provide feedback on all written documents and requests within two weeks of submission by the student.

The faculty and other professional members of the committee are responsible for the approval of the scientific integrity of both the WCE proposal and the final written paper.

### III. WHAT STEPS ARE INVOLVED IN A WRITTEN CULMINATING EXPERIENCE?

The WCE requires several steps:

- 1) Identification of a project
- 2) Preparation of the proposal
- 3) Review and approval of proposal by WCE committee
- 4) Review and approval of proposal by the Assistant Dean for Academic Affairs and Student Services
- 5) Review and approval of the proposal by the UTHealth IRB (if applicable), as well as review by outside IRBs or Institutional Review Committees (if applicable)
- 6) Completion of the proposed work
- 7) Preparation of the final WCE document
- 8) Public presentation of the WCE project

Each of these steps is described below. However, as soon as you decide to pursue a WCE—even before you have selected your project—it is important to ensure that you have, or have a plan to acquire, the writing skills required to complete the WCE, including basic writing skills and more advanced scientific writing skills:

**Basic writing skills:** The UTSPH provides a course for developing writing skills: <https://sph.uth.edu/faculty/instructional-development/writing-resources/>. The UTSPH also provides resources and services to help students in all disciplines become more proficient communicators through the SPH Writing Support Services.

SPH Writing Support Services provides free writing instruction for all students at all stages of the writing process. An ESL training specialist and an Academic Writing training specialist are available for in-person and online writing consultations. During each writing consultation, the training specialist will work with you to meet your and your instructor's goals for a particular writing assignment. SPH Writing Support Services will assist you in many areas of writing to help you take responsibility for your own writing.

SPH Writing Support Services is located in the SPH Library (RAS E-125) in the Houston campus, but it is available to students at all SPH campuses via interactive television (ITV). To schedule an in-person appointment or an ITV session with SPH Writing Support Services, please call 713-500-9121 or e-mail [SPHWritingHub@uth.tmc.edu](mailto:SPHWritingHub@uth.tmc.edu).

In addition to the educational resources provided by UTSPH Writing Support Services, in-person and online English as a Second Language (ESL) courses are available through several local institutions, including:

- Austin: Austin Community College: <http://www.austincc.edu/>
- Brownsville: UT Brownsville: <http://utb.edu>
- Dallas: Dallas Community Colleges: <http://www.dcccd.edu>
- El Paso: El Paso Community College: <http://www.epcc.edu>
- Houston: Houston Community College: <http://www.hccs.edu/>
- Houston: Rice University: <http://esl.rice.edu/>

- Houston: University of Houston: <http://www.uhd.edu/admissions/transient.html>
- San Antonio: Alamo Colleges: <http://www.alamo.edu/>

**Scientific writing skills:** Following are recommended resources to help students develop their scientific writing skills:

### **Textbooks**

*Academic Writing for Graduate Students: Essential Tasks and Skills*, 3rd ed. John M. Swales and Christine B. Feak (The University of Michigan Press, 2012)

*The Bedford Handbook*, 8th ed. Diane Hacker and Nancy Sommers (Bedford/St. Martin's Press, 2009)

*The Craft of Scientific Writing*, 3rd ed. Michael Alley (Springer, 1996)

*Essentials of Writing Biomedical Research Papers*, 2nd ed. Mimi Zeiger (McGraw Hill, 2000)

*Style: The Basics of Clarity and Grace*, 5th ed. Joseph M. Williams & Joseph Bizup (Pearson Education, Inc., 2015). ISBN-13: 978-0321953308

*They Say / I Say: The Moves that Matter in Academic Writing*, 3rd ed. Gerald Graff, Cathy Birkenstein and Russel Durst (W. W. Norton & Co., 2014)

*Writing Science: How to Write Papers that Get Cited and Proposals that Get Funded*. Joshua Schimel (Oxford University Press, 2011)

### **Online writing resources**

- The Writing Center at the University of North Carolina: <http://writingcenter.unc.edu/handouts/>
- Purdue University Online Writing Laboratory (OWL): <http://owl.english.purdue.edu/owl/>
- Duke University Writing Studio: <http://twp.duke.edu/twp-writing-studio>
- The Science of Scientific Writing (Gopen and Swan): <http://www.americanscientist.org/issues/pub/the-science-of-scientific-writing/>
- Scientific Writing: Beyond Tips and Tricks (Swan): <http://www.bing.com/videos/search?q=swan+writing+youtube&FORM=VIRE2#view=detail&mid=AB82E17FFC0E6721618BAB82E17FFC0E6721618B>
- Three Modules on Clear Writing Style: An Introduction to The Craft of Argument, by Joseph M. Williams and Gregory Colomb: <http://cnx.org/contents/K7sPEHSM@1.2:YLds-vB0@1/Writing-Module-Introductory-No>

**Use of electronic and library resources:** The UTSPH Library provides formal training on the use of online searching techniques and reference management software. In addition, members of the library staff are available to provide one-on-one training and assistance.

<https://sph.uth.edu/current-students/library/>

**The Texas Medical Center library** also offers classes on a variety of topics: <https://library.tmc.edu/resources/> (Click on "Classes/Workshops" in the top right tab)

### III-A. Identification of a Project

It is never too early to start thinking about topics for your WCE. There are many potential sources of ideas, including: faculty, staff and students; co-workers and other colleagues; journals; classes; seminars; and professional meetings. (Note: Projects that are largely complete, or that have been completed prior to writing your proposal, including work that has been submitted for publication or previously published, may not be used as your WCE project.)

As you begin to think about your WCE topic, it may help to keep a notebook or journal that includes project ideas, notes from discussions and seminars, lists of additional people to talk with, and articles on topics of interest. Once you have identified a potential project, it may be helpful to prepare a short overview, summarizing the relevant background information as well as the aims and significance of the proposed project that can be shared and discussed with your committee members.

The School's website offers several features that can help you to find out about the research interests of the faculty.

- The online faculty directory includes brief descriptions of each faculty member's research interests. The directory can be filtered by Department, Campus or Center and can also be searched for specific keywords
  - <https://sph.uth.tmc.edu/faculty/>
- The UTSPH Office of Research webpage includes lists of recent publications by the faculty, as well as recently funded grants:
  - <https://sph.uth.edu/research/office-of-research/>

The project that you select should be of interest to you and relevant to your future career goals. However, it should also be feasible to carry-out given available resources and within a reasonable time period. It is very important that you pick a project that fits with your skills (e.g. statistical, qualitative and analytic). Consequently, once you have identified a potential project, it is essential that you discuss both the scientific and practical aspects of the project with your committee members and any others who would play a significant role in the project. Do not be discouraged if your first project idea is determined to be inappropriate, for either scientific or practical reasons. It is not unusual to identify two or three potential projects before an appropriate project is identified. Working through the scientific and practical issues of each potential project provides valuable experience and perspective, and is part of the learning process.

***When should the WCE project be started?*** Although it is never too early to start to think about ideas for your WCE project, planning the project and writing the proposal will require the synthesis of knowledge and experiences gained from the MPH program. Consequently, the bulk of the WCE project is undertaken after sufficient public health knowledge and skills have been acquired. The process is generally initiated at least 12 months prior to the deadline for submitting the final documents in the semester that you plan to graduate.

**TIMELINE:** The time required to identify a WCE project is extremely variable. However, it can take several weeks, so it is never too early to start thinking about topics.

## III-B. Preparation of the Proposal

Once you and your committee have agreed on an appropriate project for the WCE, the next step is to write the WCE proposal.

***What is the purpose of the proposal?*** The proposal is a requirement for all students who choose to undertake a WCE, and serves several purposes. First, the proposal prepares you for the work that will be required to complete your WCE project. As you write your proposal, you are gaining important background knowledge that will help to guide your project, as well as working through the logistics required to complete each step of the project. The proposal also serves as a contract between you and your committee. It is a statement of the goals that you have agreed are needed to complete the WCE and move forward towards graduation. A proposal is also necessary to obtain institutional approvals (e.g., IRB approval) that may be required before your project can be initiated.

***Is there a specific format for the proposal?*** Style Templates are available for preparing and formatting the final WCE/Thesis. These templates can also be used to prepare the proposal, if desired. The purpose of the templates is to provide formatting style guidance (margins, font, heading style). Templates can be found on the “Templates” tab at: <https://sph.uth.edu/research/student-research/#tab-4>. Check with your committee to determine their preference of style for the references and/or bibliography (e.g., APA style).

***What should the proposal include?*** The length and specific content of your proposal should be determined by your committee. There is no specific minimum or maximum length requirement for the proposal. In general, proposals are usually not longer than 15 double-spaced pages (12-point font), and include the following sections:

- **Background/Introduction and Public Health Significance**

This section should provide a review of the relevant literature. The level of detail that you provide in this section will be determined by you and your committee members. At a minimum, you should provide the background information that a general reader would require to understand the topic of your project and the rationale for the proposed work.

This section should also include a discussion of the public health significance of your specific project. In other words, it should explain in what way, specifically, your project is important in the context of public health. Explain how the results of your study may help advance the science/field of public health. Sometimes this is described as the “So what section” of your project.

- **Specific Aims/Hypotheses/Objectives/Research Question(s)**

This section should include a statement of the research question, hypothesis, specific aims and / or objectives of your project. The best approach for setting up this section will depend on your specific project, and should be discussed with your committee. This section may also include a brief discussion of the rationale for the proposed project and/or a brief description of the approach that will be used to meet the stated goals

- **Methods**

The content of this section will vary depending on your specific project. However, all proposals must include details of the methods that will be used to address the study aims/hypotheses or objectives. The methods section should include the following

considerations, as appropriate to your proposed work:

- Study design
- Study setting, including locations and dates
- Study population
  - Inclusion and exclusion criteria
  - Recruitment strategy
  - Consent process (who, what, when, where, how?)
  - Sample size calculations and/or study power
- Data collection procedures
  - Specify the type of data that will be collected, as well as how the data will be collected (e.g. interviews, review of medical records) and recorded (e.g. paper records, computer program, videotape)
  - For research involving interaction with human participants, include a full protocol/description of study procedures, such as the number of study visits required of participants, what procedures will occur at each visit, how long each visit will take, and the total amount of time required of each subject to participate in the project. This information will be required by the Institutional Review Board that reviews Human Subjects research.
- Data Handling and Record Keeping
  - State how you will access data/source documents (e.g. electronic medical record, chart review)
  - State whether human subjects will be identifiable either directly (e.g. name) or through identifying variables (e.g. medical record number).
  - State how and where the data will be stored, and how it will be protected to maintain confidentiality.
- Data analysis
  - Include statistical, laboratory and/or other methods that you will use to address each study aim, hypothesis or objective.
- Ethical considerations
  - Include human subjects, animal subjects, and/or other safety considerations.

The methods section tells the reader exactly “how” you are going to achieve your aims and/or answer your research questions. *It is important to be as specific as possible in this section.* For example, stating that you will use logistic regression to analyze your data is not sufficient. Rather, you need to state what independent and dependent variables will be used as well as what potential confounders and effect modifiers will be considered.

Additional details, such as how variables will be coded, can also be helpful. Further, you should indicate how the analyses will be interpreted (e.g. p-values, odds ratios and 95% confidence intervals).

When organizing the methods section, it is often helpful to re-state each aim and follow it with the details of the specific methods that will be used to achieve that aim. It is also essential that you use past and present tense appropriately in this section. For example, if you will analyze previously collected data, sections on study design, study setting and subject recruitment/consent should be written in the past tense (e.g. someone collected the data in the past); whereas the sections on data analysis should be written in the future tense (e.g. you will analyze the data in the future, after your proposal is approved). It is

extremely important that you clearly delineate the work that you will do from the work that has already been done.

- **References/Bibliography**

This section should include complete references for all literature, websites, books, and other materials referenced in your proposal. There is no required format for the references in your proposal. It is, however, recommended that you use reference management software such as RefWorks, which is available free of charge to UTSPH students.

Information and training on RefWorks is available through the UTSPH library at:

<http://libguides.sph.uth.tmc.edu/guides-handouts-library-resources/refworks-handouts>

- **Other Sections**

Your proposal may include other sections as appropriate for your project or as required by your committee. Examples of other sections that you might include are:

- **Preliminary data:** Work that is largely complete or that has been previously completed, including work that has been submitted for publication or previously published, may not be used in place of the WCE. If you have already started to work on your project, for example as part of your practicum or as a graduate research assistant, you should include a summary of the work that has already been done leading up to the proposed project.
- **Results:** If you include this section, it would provide an outline of how your results will be presented and mock-ups of the tables and/or figures that will be used to present your data.

Table 2 in the Supplemental Appendix provides additional detail on the contents of each section for different types of WCEs.

Preparation of your proposal is an interactive process that involves your advisory committee members. As you begin your proposal, you should work with your committee to establish how they will review drafts of your proposal. Often, one member of your committee will serve as a primary reviewer for your initial draft(s), while the other members will review only later drafts or specific sections of the proposal.

In general, your proposal will require several drafts and edits before it is finalized. It is reasonable to assume that, on average, it will take two weeks for committee members to provide feedback on each of your drafts and that two to four drafts will be required before the proposal is finalized.

### ***What approvals are required?***

Your proposal must be approved by all CE/Thesis committee members, and the Assistant Dean for Academic Affairs and Student Services. In addition, your proposal may need to be submitted to and approved by:

- UTHealth Committee for the Protection of Human Subjects (UT CPHS, our IRB)
- Other IRB(s) (e.g. for data collection at an institution outside of UTHealth)
- UTHealth Animal Welfare Committee (AWC)
- UTHealth Biosafety, Chemical Safety, or Radiation Safety Committees

To determine whether your project requires such approvals, as well as for additional information on the approval process, please refer to the UTSPH Research Compliance Guide, which is included below in the Appendix to this Guide, and is available on the SPH website:

<https://sph.uth.edu/research/student-research/#tab-2>

### ***When should I submit the proposal?***

After your CE committee has signed off on the proposal, you may submit it concurrently to CPHS for approval (if you are using human subjects or human-derived data), and to the Office of Academic Affairs and Student Services for approval of the Assistant Dean.

**WCE/thesis proposal deadlines:** It is required by school policy that all UTHealth SPH students completing a WCE, thesis or dissertation must submit a PROPOSAL for review and approval no later than the last day of class of the term *prior* to which they expect to graduate. Students must also adhere to University IRB and Research policies and guidelines, as well as POLICY 401 CONTINUOUS ENROLLMENT once their thesis/dissertation proposal is approved. Dual degree students may be enrolled in either program to work on their research. More information on school policies can be found at: <https://sph.uth.edu/academics/academic-affairs/#tab-3>

Specific semester dates and deadlines for the proposal submission and approval, along with other dates pertaining to the CE/thesis, are posted on the Student Research “Important Dates” page at: <https://sph.uth.edu/research/student-research/important-dates-for-the-cthesisdissertation/>

Students should also refer to the SPH Graduation page for information about other graduation-related deadlines: <https://sph.uth.edu/current-students/graduation/>

### ***What forms must be submitted with the proposal?***

**Proposal forms, along with detailed instructions for submitting the proposal** to CPHS and to the Office of Academic Affairs and Student Services are available by clicking on the “Submitting your Proposal” tab at: <https://sph.uth.edu/research/student-research/#tab-3>. Students must submit their printed proposal and signed proposal forms/documents to the Office of Academic Affairs and Student Services for approval, as well as an electronic copy of the proposal itself (without the forms). Proposals are submitted to CPHS via the iRIS online system for UTHealth IRB approval.

All WCE proposals will require the following forms/documentation:

- Student Proposal Cover Sheet
- Institutional Approvals Document
- Authorship, Publication Plan, and Data Ownership form
- Certificate of student’s completion of a course on the protection of human subjects through the Collaborative Institutional Training Initiative (CITI):
  - <https://www.citiprogram.org/>

Additional forms or documentation may be required (as applicable), such as:

- Data Handling Procedures (for use of *existing* data/samples)

- Letter of permission for use of data (for use of existing data not in the public domain)
- Letter documenting that the student has been added as personnel on an existing UTHealth faculty member's study, which has been approved through U T Committee for the Protection of Human Subjects (CPHS)
- UT CPHS letter of approval (or exemption letter) for the student's CE/Thesis/Dissertation research (student is PI). Students who require CPHS approval for their project should review the CPHS protocol requirements to ensure that they include all relevant detail in their SPH proposal.
- UTHealth Animal Welfare Committee documentation (projects using animals)
- UTHealth Institutional Biosafety/Chemical Safety Committees (as appropriate)
- Certificate(s) of completion from appropriate institutional safety courses (e.g. animals; biohazardous substances, chemical, radioactive materials; microbiological, biological, infectious agents or recombinant DNA)

Approval by the Assistant Dean requires that all appropriate forms/documents have been submitted and are complete and accurate. If your project requires CPHS or other approvals, and such approvals are pending, you may submit all other documents to the Assistant Dean for preliminary review. However, final approval by the Assistant Dean will require appropriate documentation from all relevant committees.

### ***What are the enrollment requirements?***

You must be enrolled for at least three credit hours during the semester in which the proposal is submitted, and in every semester after you submit your proposal until you graduate. Dual degree students may be enrolled in either program to work on their research.

**TIMELINE:** Completion of the WCE proposal will generally take at least one month and may require several months, depending on the number of revisions required by your advisory committee. Projects that require CPHS or other institutional approvals will generally take longer than those that do not require such approvals.

### III-C. Completion of the proposed project

The requirements for this step vary considerably from project to project. While the WCE proposal provides an outline of the work that needs to be accomplished, the student and advisory committee must work together to determine the details of how and when that work will be accomplished.

The successful and timely completion of any project requires communication, organization and time management. Hence, it is essential that you meet with your committee members to develop a work plan and timeline. Issues that should be addressed during this initial meeting include:

- the role of each committee member
  - often, you will work more closely with one member than the others
- meeting schedules
  - how often will you meet with the entire committee? individual members?
  - optimally, you will meet at least every other week with a least one member of the committee
- mechanism(s) for providing updates between meetings
  - e.g. emails, summary reports etc.

As you are working on your project, it is important to adjust your work plan and timeline so that they remain realistic. If your work plan changes substantially, relative to what was included in your approved proposal, it may be necessary to submit a proposal amendment memo for review by the Assistant Dean as well as protocol amendments to other relevant committees (e.g. CPHS).

**TIMELINE:** In general, it will take 1-6 months to complete the WCE project after all appropriate approvals have been received.

### III-D. Preparation of the final WCE

The WCE proposal will provide the starting point for your final WCE document. However, you may need to update the Background section to reflect any new developments in the field. In addition, you may need to expand and/or revise the Methods section to accurately reflect the procedures that were used. You will also need to write the sections that were not included in your proposal (e.g. Results and Discussion) and update your references.

#### ***Is there a specific format for the final WCE document?***

The final WCE document can have one of two general formats:

- WCE without journal article
- WCE with journal article

Templates and a Template Checklist to be used for formatting are available on the “Templates” tab at: <https://sph.uth.edu/research/student-research/#tab-4>.

The templates are designed to assure that standards of style and document formatting (margins, page numbering, style, etc.) are followed. They are not intended to define the specific content of the WCE. Use of the templates is optional for the proposal; however, they must be consulted for the appropriate formatting of the final WCE document.

### ***What should the final WCE document include?***

There is considerable flexibility in the manner in which you present your WCE. In general, the final document will include the following sections:

- **Abstract**

The abstract is a concise summary (~350 words) of the background, methods, primary results and conclusions of your WCE.

- **Background/Introduction and Public Health Significance** (previously described)
- **Specific Aims/Hypotheses/Objectives** (previously described)
- **Methods** (previously described)
- **Results**

This section should describe your findings or accomplishments, without comment or discussion. Findings may be presented in tables and figures as well as text.

If the project has been, or will be submitted for publication, the journal article (conforming to the style of the journal to which it has been/will be submitted) may be included as a chapter within the results section. Any additional findings, not included in the article, should be included as a separate chapter in the results section.

- **Discussion/Conclusions/Recommendations**

In this section, the results of your project should be discussed relative to what is already known about the topic. In addition, the conclusions and/or recommendations that can be made based on the results of the project should be stated. Finally, the strengths and limitations of the project should be described.

- **References/Bibliography** (previously described)

### ***What institutional approvals are required?***

The final WCE must be approved and signed by all student WCE committee members. One or two revisions are often required before the final WCE is approved. After the student WCE committee approves the final document, the Office of Academic Affairs and Student Services will review the document for formatting requirements (margins, front matter, etc.). The format review will take place online, after the student has uploaded the final document to ProQuest (i.e., after the final submission deadline).

**DEADLINES:** The final WCE signature page, a public presentation of the WCE, and the online submission of the final WCE to ProQuest must be completed and submitted by the final submission deadline indicated on the UTSPH calendar for the semester you intend to graduate. Students should refer to the SPH Graduation pages for detailed information about submitting the final thesis, semester deadlines, and other information related to graduation at:

<https://sph.uth.edu/current-students/graduation/>

As with all of the steps in the thesis, the time required to complete the final written document can be quite variable.

### **III-E. Public presentation of the WCE project**

For all MPH students entering in the Fall of 2005 or later, successful completion of the WCE includes a public presentation. This presentation may be either based on the proposal or the completed project. The decision as to when to conduct the public presentation is determined by the student and WCE/thesis committee. Presenting the project at the proposal stage has the advantage of allowing for input from individuals outside of your committee, which may be helpful as you move forward with your project, and can help to reduce your workload as you approach graduation.

Although there is no specific format for the public presentation, it is suggested that you use a standard software package (e.g. PowerPoint) to develop your talk. You should provide drafts of your slides to your advisory committee, and practice your talk at least once with your advisory committee members. Additional practice sessions with other students or colleagues can also be helpful. You should be able to present your work without, or with minimal reference, to written notes and be prepared to answer questions from the audience. It is also important that you are able to go through your entire presentation in the allotted time.

The time and venue for the presentation are determined by the student's advisory committee and department. Options include presentation as part of a School or Department-wide seminar or an individually scheduled public presentation. This requirement is BEST completed at least two weeks prior to the last day of class in the semester that the student plans to graduate. The final DEADLINE for completion is no later than the last class day of the semester.

Students can schedule a room for the presentation by submitting a Room reservation form to Betty Claybon, RAS W130, or by submitting a room reservation request through the [Astra](#) online reservation system. Austin, Brownsville, Dallas, El Paso, and San Antonio Campus students should contact their campus Staff Advisor to schedule a room.

Presentations must be announced to the public at least 2 weeks before the last class day; for example, by distributing flyers, or announcing the defense in the SPH weekly newsletter by forwarding your presentation information (your name, WCE/thesis title, location, date and time, and committee names) to: [sphannounce@uth.tmc.edu](mailto:sphannounce@uth.tmc.edu).

More information on scheduling the presentation can be found on the SPH Graduation page (Step 8): <https://sph.uth.edu/current-students/graduation/>

#### IV. WHAT IS THE GENERAL TIMELINE FOR COMPLETION OF THE WCE?

There is no set time for the completion of the WCE. The amount of time required to complete the WCE is determined by the specific project and the time that the student devotes to the project. In general, this process will require at least five and up to 15 months.

<b>Activity</b>	<b>Timeline</b>
<b>Selection of a project</b> <ul style="list-style-type: none"> <li>• Discussion of ideas with committee members</li> <li>• Approval of concept by all committee members</li> </ul>	1-3 Months
<b>Preparation/committee approval of the proposal</b> <ul style="list-style-type: none"> <li>• Draft proposal</li> <li>• Review of proposal by committee members</li> <li>• Revision of proposal (several revisions may be necessary)</li> <li>• Committee approval</li> </ul>	1-3 months
<b>Other institutional approvals of proposal (if required)*</b>	2-6 weeks*
<b>Assistant Dean approval of proposal</b>	2 weeks
<b>Conduct of the project</b> <ul style="list-style-type: none"> <li>• Data collection</li> <li>• Data management</li> </ul>	1-6 months
<b>Preparation/committee approval of the final WCE document</b> <ul style="list-style-type: none"> <li>• Update background, methods, bibliography as needed</li> <li>• Write results and discussion</li> <li>• Prepare figures and tables</li> <li>• Submit to committee members</li> <li>• Review by committee members</li> <li>• Revisions as necessary (several may be required)</li> </ul>	1-2 months
<b>Total</b>	5-15 months

\*Proposals requiring full IRB review may take longer.

## APPENDIX

### RESEARCH COMPLIANCE

The University of Texas School of Public Health at Houston  
2016-2017



All research conducted by the faculty, students and staff of UTSPH including research projects and analyses of research data that are conducted as part of UTSPH courses, must be reviewed and approved or exempted by the appropriate Institutional committees *before* the research is initiated. At the University of Texas Health Science Center (UTHealth), these committees, which fall under the UTHealth Office of Research, monitor research compliance related to: Human Subjects Protection, Care and Use of Animals, and Environmental Health and Safety.

UTHealth Office of Research: <http://www.uthouston.edu/research/>

UTHealth Compliance Program: <http://www.uthouston.edu/compliance/>

It is the responsibility of the investigator (or course instructor) to ensure that a research project has received all necessary approvals prior to initiating a study, and to require all project staff and/or students to receive appropriate training before initiating any research related activities. It is also the investigator's responsibility to obtain approval for any additions or changes to the study, before they are implemented, as well as to maintain all necessary approvals through completion of the study.

This document provides UTSPH investigators with general information regarding the Institutional training that is available, and the oversight that is required for different types of research. In addition, general questions regarding training and oversight may be directed to Brooke Burns in the UTSPH Office of Academic Affairs and Student Services. However, investigators should visit the appropriate UTHealth website for the most up-to-date and complete information, and/or contact the appropriate programmatic official in the UTHealth Office of Research, to ensure that they have obtained all necessary training and approvals before initiating any research project.

Brooke Burns: 713-500-9072 or [Brooke.Burns@uth.tmc.edu](mailto:Brooke.Burns@uth.tmc.edu)

**Student Research:** The information included in this document relates to students as well as faculty and staff. Additional information related specifically to student research is provided at the end of the document.

# Human Subjects Protection

## ***Committee for the Protection of Human Subjects (CPHS)***

CPHS is the Institutional Review Board (IRB) for UTHealth. CPHS reviews proposed research as it applies to the individuals being asked to participate as research subjects in order to determine if adequate measures are in place to protect autonomy, safety, emotional health, and financial considerations.

Human subjects research is defined as research involving human subjects, human-derived materials, or human-derived data. All human subjects research, funded and unfunded, must be reviewed and approved by CPHS before it is initiated if it falls in one of the following categories:

1. Human subjects research conducted by any UTHealth employee (faculty, staff, administrative and professional), student, or resident in any facility/location (e.g. MHHS, HCPC, Thomas Street Clinic or LBJ General Hospital);
2. Human subjects research conducted by non-UTHealth investigators that involves subjects/patients from any UTHealth-facility.

CPHS: <http://www.uthouston.edu/cphs/>

Most of the research conducted by UTSPH investigators will require review by CPHS. Examples of research that **does not** require CPHS review include:

***Research Using Simulated Data:*** Research based solely on data obtained through computer simulations does not require CPHS review.

***Research Using Published Literature:*** Research that is based entirely on published literature (e.g. systematic literature reviews) does not require CPHS review.

***Exempt Status:*** Many research projects are exempt from CPHS review. However, the investigator **cannot** make the decision regarding exempt status. Studies that may be exempt must be submitted for review and determination of exempt status by CPHS. Examples of types of research that may qualify for exemption include:

***Research Using Publicly Available Data:*** Research involving publicly available data (e.g. census data, labor statistics, data available online) must be submitted to CPHS in iRIS for determination of Exemption. Investigators should contact the CPHS at 713-500-7943 if they are not sure whether their data qualifies as “publicly available.”

***Research Using Existing, De-identified Data:*** Research involving the use of existing, de-identified data sets must submit an application to CPHS in iRIS for determination of Exemption.

***Expedited Review:*** Research involving existing data sets with the use of personal identifiers must be submitted for review by CPHS in iRIS. These studies may qualify for Expedited Review by CPHS.

Information on Exempt/Expedited Review: <http://www.uthouston.edu/cphs/policies/index.htm>

***Human Subjects training:*** All individuals participating in research that involves human subjects

must receive appropriate training before initiating any research activities, and must receive updated training as necessary.

Courses that satisfy the UTHealth requirement for education on the protection of human subjects are offered online by the Collaborative Institutional Training Initiative (CITI).

Information about CITI: <http://www.uthouston.edu/cphs/for-researchers/training.htm>

Link to CITI: <https://www.citiprogram.org/default.asp?language=english>

In addition to the above requirement, all principal investigators of sponsored projects must complete an online Investigator Briefing in the Responsible Conduct of Research. Further details on this requirement can be found at: <http://www.uthouston.edu/evpara/investigator-briefing.htm>

**Applications:** UT CPHS uses an online application called iRIS (Integrated Research Information System). All applications, including those for studies that may be exempt from CPHS review, must be submitted through iRIS.

Register for iRIS training: <http://www.uthouston.edu/cphs/for-researchers/reg-iris-training.htm>

Basic iRIS instructions: <http://www.uthouston.edu/cphs/for-researchers/basic-iris.htm>

Log in to iRIS: <https://iris.uth.tmc.edu/>

## Care and Use of Animals

### ***Center for Laboratory Animal Medicine and Care (CLAMC)***

The CLAMC provides training related to the oversight, care and use of experimental animals, to ensure that the individuals involved in these activities are qualified to accomplish these tasks in a humane and scientifically acceptable manner.

CLAMC: <https://www.uth.edu/animal-research/>

### ***Animal Welfare Committee (AWC)***

All research using animal subjects or animal derived materials must be submitted to the AWC, the Institutional Animal Care and Use Committee, for the UTHealth. Faculty with approved animal use protocols must assure the AWC that personnel will be or are adequately trained. Training is provided through CLAMC.

AWC: <https://www.uth.edu/animal-research/awc.htm>

## Environmental Health and Safety

### ***Safety, Health, Environment and Risk Management (SHERM)***

Training in basic laboratory safety as well as radiation, chemical and biosafety is provided by SHERM.

SHERM: <http://www.uth.edu/safety/>

### ***Radiation Safety Committee***

This Committee formulates and recommends policy for the use of radioactive materials and other sources of radiation. Research involving use of radioactive materials in humans must be reviewed by the Radiation Safety Committee.

### ***Chemical Safety Committee***

This Committee recommends policy for the use of chemicals that may be hazardous in the research, clinical and educational activities at UTHealth. Chemical Safety Committee approval must be obtained prior to using acutely toxic chemical agents, including those listed by the International Agency for Research on Cancer (IARC) or the National Toxicology Program (NTP) as suspected or confirmed carcinogens, or for which toxicological/epidemiological studies have indicated that the chemical has reproduction, acute, and or reactive hazard(s). In addition, any hazardous chemical that is used in such a way as to present the potential for an exposure above the Occupational Safety and Health Administration's Permissible Exposure Limits (PEL) or the American Conference of Governmental Industrial Hygienist's Threshold Limit Values (TLV), requires committee review.

### ***Institutional Biosafety Committee***

This Committee addresses ethical, scientific and regulatory issues related to infectious diseases and biological agents. Institutional Biosafety Committee approval must be obtained prior to using microbiological/infectious agents and/or recombinant DNA molecules in research.

Additional information about these Committees as well as application materials can be obtained at: <http://www.uthouston.edu/safety/manuals-and-forms.htm>

## Student Research

**Students as Personnel on UTHHealth Faculty Research Projects:** Many UTSPH students participate as personnel in research being conducted by UTSPH or UTSPH faculty members. A student's involvement in such projects must be approved by all appropriate committees (CPHS, AWC, IBC, etc.). In general, students can be added as personnel to an existing approved protocol by submitting a change request to the appropriate committee.

**Classroom Projects:** Instructors who wish to include a research project or analysis of existing data as part of a course (e.g. to explore statistical methods or other methodological issues, etc.) should obtain CPHS approval for the class project. In general, applications for class projects involving contact with or analysis of data from human subjects should be submitted to CPHS (through iRIS) by the course instructor. Briefly, the application should include: the class objectives; the types of research activities that will be included in the course; a description of faculty oversight for the project; and an acknowledgement that any student activities that exceed the boundaries of the class would need to be submitted as individual projects (e.g. if a student wants to expand upon a classroom project, for instance, for use as a culminating experience). Students who wish to expand on a class project should contact CPHS to determine whether additional approvals will be required for their project. Questions regarding classroom projects should be directed to Cynthia Edmonds, Director, Committee for the Protection of Human Subjects (CPHS), at: [Cynthia.L.Edmonds@uth.tmc.edu](mailto:Cynthia.L.Edmonds@uth.tmc.edu), or 713-500-7936.

**Student Research:** Many UTSPH students will engage in an independent research project as part of their academic program, such as the MPH written culminating experience, MS thesis, or PhD/DrPH dissertation. As with all UTSPH research projects, student projects must be reviewed by the appropriate Institutional committees before the research is initiated.

The IRB approval process for student projects is generally identical to that of faculty projects. However, for students who plan to undertake a project that falls within the scope of, or is closely-related to, an existing UTHHealth faculty member's CPHS-approved protocol, it may be possible for the study PI to obtain IRB approval of the student's project by submitting a personnel change request/protocol amendment to the existing, approved protocol in iRIS. Similarly, students may already be listed as personnel on the UTHHealth faculty member's study in question. In this case, the approval letter for the existing protocol or approval of an amendment to the existing protocol, can serve as the student's CPHS approval for the CE/thesis/dissertation project, as long as all of the work to be undertaken for the CE/thesis/dissertation is covered within the approved protocol.

Alternately, students needing IRB approval for their CE/thesis/dissertation who have not been added to a UTHHealth faculty member's approved protocol in iRIS must obtain CPHS approval by submitting their own application to CPHS in iRIS. All student CE/thesis/dissertation projects needing IRB approval *must always* receive approval through the UTHHealth CPHS, either by being added to an existing protocol with CPHS approval (as above), or by submitting an application for the student's own project in iRIS. When necessary, approval through another institution's IRB (i.e., Baylor IRB, MDACC IRB, etc.), should be obtained as well for the student's CE/thesis/dissertation proposal. Outside IRB approval may be required in addition to, but never in place of, the UTHHealth CPHS approval/exemption.

Students undertaking a written CE, thesis or dissertation project must complete all required training and obtain all necessary committee approvals before their project will be approved by the Assistant Dean of Academic Affairs and Student Services. It is the responsibility of the student and his/her research committee to determine which approvals are required, and to apply for, obtain and maintain all such approvals.

Students should visit the appropriate UTHealth website for the most current and complete information (see above), and/or contact the appropriate program official at UTHealth to ensure they have obtained the appropriate training and approvals needed before initiating their project. Brooke Burns in the Office of Academic Affairs and Student Services is available to help students determine which approvals may be required at [Brooke.Burns@uth.tmc.edu](mailto:Brooke.Burns@uth.tmc.edu). Students should visit the UTSPH Student Research pages at: <https://sph.uth.edu/research/student-research/> for detailed instructions on submitting the student CE, thesis, or dissertation proposal to the Office of Academic Affairs and Student Services, and to CPHS in iRIS.