

**CAPSTONE PROJECT
AND
INDEPENDENT STUDY HANDBOOK**

**Washington University School of Medicine
Program in Audiology and Communication Sciences (PACS)**

2019-2020 Academic Year

Updated August 13, 2019

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TERMINOLOGY USED IN THIS GUIDE

TERM	EXPLANATION	REFERRED TO THROUGHOUT THIS GUIDE AS
Capstone Project	All students pursuing the Doctor of Audiology (Au.D.) degree are required to demonstrate the ability to design and carry out a project related to audiology or clinical practice using appropriate research methodology and statistical procedures, original creative thought, independent work and study, and advanced analytical and writing skills.	Project
Independent Study	All students pursuing the Master of Science in Deaf Education (M.S.D.E.) degree are required to complete an Independent Study that integrates knowledge and practice in the field of deaf education on topics of importance to the profession.	Study
Program in Audiology and Communication Sciences (PACS)	-	PACS
Washington University School of Medicine	-	WUSM

Deaf Education Independent Study

DESCRIPTION

Students will complete an Independent Study that integrates knowledge and practice in the field of deaf education on topics of importance to the profession. At the beginning of the fall semester in the 2nd year, each student will be presented with a series of questions that deaf education faculty have deemed essential concepts that pre-service teachers must master prior to entering the profession. The student must prepare written answers to the questions and submit them to a committee of three faculty members by the end of the fall semester (see Academic Calendar for specific due date). Committees of three faculty members will be assigned by the Director of Deaf Education based on student interests and faculty availability.

Each member of the committee will provide written feedback to the students about their independent studies, as well as a recommended letter grade (provided to the Director of Deaf Education), no later than January 31st. At the end of the spring semester, the Director of Deaf Education will assign grades (via PACS 570) on the Independent Study projects based in part on the committee's recommendations.

Students will use their Independent Study document and committee feedback to prepare for the Comprehensive Oral examination, which will take place mid-Spring semester (typically March). The student's Independent Study committee will be the same as for the oral examination. The committee will use the Independent Study as a guide to select examination questions. The student will prepare a brief presentation to be given at the start of the oral examination, to which all members of the PACS community are invited to attend, prior to the question and answer session.

ACADEMIC CREDIT

Academic credit for the course PACS 570 – Independent Study is assigned in the final semester of study. Students will typically earn two (2) semester hours of credit for the Study. **The Director of Deaf Education Studies is responsible for submitting the final grade.**

SYLLABUS

A current syllabus for PACS 570 is available in Appendix A.

EXCEPTIONS

Under exceptional circumstances a student's Study may be substantively more in depth than that of a typical Study. In such cases, students may petition for the assignment of up to six (6) semester hours of credit. Such petitions should (a) demonstrate that the Study is beyond the breadth and scope typically required; (b) be signed by the student and advisor(s); and (c) be submitted to the PACS Office by the end of the twelfth week of classes in the semester in which credit is being assigned. The PACS Office will review the submitted request, along with the requirements of the University, and will respond in writing with the final decision on the number of semester hours of credit to be awarded for the Study.

LENGTH

While student work will vary, final papers should typically be between 2500 - 5000 words for the Independent Study (2 semester hours of credit).

FORMATTING INSTRUCTIONS

1. **Style.** The American Psychological Association (APA) documentation format should be used. The *Publication Manual of the American Psychological Association, Sixth Edition (2010)* may be purchased for reference.
2. **Margins.** When typing the final manuscript, margins should be one-inch on top, bottom and both sides.
3. **Fonts.** When typing the final manuscript, Times New Roman, 12-point should be used.
4. **Spacing.** When typing the final manuscript, all textual material should be double-spaced.
5. **Identification.** Your last name should be on the header (top) of the right side of each page starting on page ii.
6. **Quotations.** Long quotations may be indented and single-spaced.
7. **Pagination.** Page numbers should appear centered at the bottom of the page. Margins, listed above, should be outside the page number. The number should be separated from the text by approximately one-half inch.
8. **Cover Page.** The final manuscript should include a cover page that conforms precisely to the sample and instructions in Appendix E. Every page should have a page number except the cover page.
9. **Reference Page.** Include a reference page with all references listed in APA format.

Audiology Capstone Project

DESCRIPTION

All students pursuing the Doctor of Audiology (Au.D.) degrees are required to demonstrate the ability to design and carry out an independent project using research methodology and statistical procedures appropriate to the project, original creative thought, independent work and study, and advanced analytical and writing skills. These projects must be submitted electronically so that they can be placed in the Bernard Becker Medical Library's digital repository ("Digital Commons@Becker"). By submitting the Capstone Project to the PACS office, the student authorizes Bernard Becker Medical Library to post a copy of their work in Digital Commons@Becker or its successor technology. **Please review the Digital Commons@Becker section for important information on the digital repository, including permissions, copyright, and prior publication.** At the sole discretion of PACS, projects may be subject to review and approval prior to submission to Digital Commons@Becker. The student may request "an embargo" to the Digital Commons, if electing to submit elsewhere for publication.

TIMING

Academic coursework and practical experiences are designed to prepare the student to complete these projects. The Capstone Project is generally completed during the third year. **Failure to successfully complete the Capstone Project (including the presentation) by the end of the third year may delay graduation, receipt of the diploma, and/or the externship placement.**

ACADEMIC CREDIT

Au.D. Students: Academic credit for the Capstone Project is assigned in the third year of the program as follows:

- students entering Fall 2019 and later: PACS 5700 – Capstone Project (4 semester hours) in the spring semester of the third year
- students entering prior to Fall 2019: PACS 5701 – Capstone Project Seminar (1 semester hour) in the fall semester of the third year and PACS 5700 – Capstone Project (3 semester hours) in the spring semester of the third year

ACCEPTABLE PROJECTS

Au.D. Students: Acceptable types of research projects might include:

- original independent laboratory work complementary to, or of interest to, a faculty advisor;
- a novel analysis of existing data to confirm or refute a research hypothesis;
- a clinical or applied investigation that is created with the advice and support of a faculty advisor;
- meta-analysis relevant to a clinical protocol or procedure or systematic review;
- development of a new protocol related to diagnostic and/or rehabilitative audiology;
- a project that is a contribution toward growth/further development of the profession and/or of doctoral education in audiology;
- publishable (peer-reviewed journal) and comprehensive tutorial related to current topic in clinical audiology; or
- revision of best practice document related to the profession of audiology;
- a project of importance or relevance to the field of audiology as approved by the Director of Audiology Studies.

EXCEPTIONS

Under exceptional circumstances a student's Project/Study may be substantively more in depth than that of a typical Project/Study. In such cases, students may petition for the assignment of up to six (6) semester hours of credit. Such petitions should (a) demonstrate that the Project/Study is beyond the breadth and scope typically required; (b) be signed by the student and advisor(s); and (c) be submitted to the PACS Office by the end of the twelfth week of classes in the semester in which credit is being assigned. The PACS Office will review the submitted request, along with the requirements of the University, and will respond in writing with the final decision on the number of semester hours of credit to be awarded for the Project/Study.

Managing the Capstone	
Deadline for Capstone Proposal: SEPTEMBER 1	
Human Subjects (IRB Review)	NO Human Subjects
Primary Advisor: WU Faculty (Assistant Professor or higher)	Primary Advisor: WU Faculty or Staff (Lecturer or higher)
Second Advisor: WU Faculty, Staff, or other (other requires advance approval from AuD Director)	Second Advisor: WU Faculty, Staff, or other (other requires advance approval from AuD Director)
Submit Capstone Proposal to PACS office	Submit Capstone Proposal to PACS office
Approval received from AuD Director and PACS Program Director	Approval received from AuD Director and PACS Program Director
Submit IRB protocol to HRPO - Assurance doc is signed by PACS Program Director	Begin project after approval is received
Begin project after BOTH approvals have been received	

SYLLABUS

A current syllabus for PACS 5700 is available in Appendix B.

ADVISORS

The primary Project advisor must be WU faculty (rank of Assistant Professor or higher) or staff member (rank of Lecturer or Instructor). For projects involving human subjects, the primary advisor must be full-time WU faculty (rank of Assistant Professor or higher). **The primary advisor is responsible for submitting the final grade.**

The primary advisor should preferably hold an earned doctorate-level degree. Students must also secure a second advisor, to be identified on the Capstone Project Proposal (see Academic Calendar for deadline). This individual should be available for consultation and will provide comments toward the written draft(s) and oral presentation. The purpose of this two-person committee is to help strengthen the Project and provide additional guidance for the student.

PRELIMINARY PAPERWORK

Students must electronically submit the **Capstone Project Proposal in Canvas** (<http://mycanvas.wustl.edu>) by September 1st in their 3rd year of study. However, students are strongly

encouraged to begin the process earlier, and Proposals will be accepted at any time before this deadline. **Please refer to the PACS Academic Calendar for other deadlines.**

The proposal should summarize both the scope and procedure of the Project. The “scope” defines its limits – what you intend to cover and what you intend not to cover. The “procedure” describes the manner in which you intend to complete and/or conduct your research. The Proposal should be completed in consultation with your primary advisor and second advisor. Please see **Appendix D** for proposal instructions and examples.

PROPOSAL APPROVAL

The Proposal will be reviewed by the PACS Office upon submission and notification of the approval of the Proposal, primary advisor, and second advisor (if applicable) will be sent to the student via Canvas.

PROJECTS INVOLVING HUMAN AND/OR ANIMAL SUBJECTS

Strict laws, policies and procedures are in place for any activity that meets a Federal definition of human and/or animal research. Student projects are not exempt from these requirements, and any student proposing the Capstone Project that will be using human and/or animal data must receive training and written approval from the appropriate department prior to the start of the project. Upon receiving notification that the proposal has been approved by PACS, students must contact either the Human Research Protection Office or the Animal Studies Committee so that the proper training can be completed by the student and/or primary advisor, the proper forms and approvals received, and any necessary follow-up and reviews can be obtained. **NO HUMAN AND/OR ANIMAL RESEARCH MAY BE CONDUCTED UNTIL ALL NECESSARY APPROVALS HAVE BEEN RECEIVED.**

Animal Studies Committee:

<https://research.wustl.edu/offices/iacuc/>

Human Research Protection Office:

<http://hrpo.wustl.edu/>

Human Subjects Research Training Module (CITI): <https://www.citiprogram.org/>

EVOLUTION OF THE PROJECT

It is understood that the scope, procedure and/or title of the Project may change as you complete your work. Students will be asked to confirm the final title, primary advisor, and second advisor with the PACS Office before student presentations are scheduled for the PACS Student Research Colloquium. Please see “PRESENTATION” section below for additional information on student expectations for the Colloquium.

LENGTH

While student work will vary by discipline and project, final papers should typically be at 7500 words for the Capstone Project (3 semester hours of credit).

FORMATTING INSTRUCTIONS

Please note that past projects published in Digital Commons @ Becker may not follow these same formatting requirements and should not be used as examples or templates.

1. **Style.** The American Psychological Association (APA) documentation format should be used, unless your primary and second advisors have specified another documentation format. The *Publication Manual of the American Psychological Association, Sixth Edition (2010)* may be purchased for reference.

***Please notify the PACS office in advance if a format other than APA will be used.**

2. **Margins.** When typing the final manuscript, margins should be one-inch on top, bottom and both sides.
3. **Fonts.** When typing the final manuscript, Times New Roman, 12-point should be used.
4. **Spacing.** When typing the final manuscript, all textual material should be double-spaced.
5. **Identification.** Your last name should be on the header (top) of the right side of each page starting on page ii.
6. **Footnotes/endnotes** should be single-spaced. Leave one blank line between notes.
7. **Quotations.** Long quotations may be indented and single-spaced.
8. **Pagination.** Page numbers should appear centered at the bottom of the page. Margins, listed above, should be outside the page number. The number should be separated from the text by approximately one-half inch.

Every sheet of paper in the manuscript should be numbered except for two: the cover page is not numbered (but is counted as the first preliminary page; see below), and the optional copyright page is neither numbered nor counted. Letter suffixes (e.g., 10a) may not be used.

Lower case Roman numerals are used for the preliminary pages. Preliminary pages include all pages preceding the epigraph, if included, or the text of paper if no epigraph is included. Please see the Guide to Page Numbering below for more information. Since the cover page is counted but not numbered, “ii” is the first number used and will appear on the acknowledgement page.

Arabic numerals are used for **all other** manuscript pages. Begin with page number 1 for the epigraph, if included, or the text of the paper if no epigraph is included. Pages with Arabic numerals should **not** continue numerically (e.g. from xii to 13) from the Roman numerals.

Guide to Page Numbering

Item	This page required?	Page #	Include page # in footer?	Include your name in header?
Cover page – <i>must conform to template</i>	yes	i	no	no
Copyright	no	- (not counted)	no	no
Acknowledgements	yes	ii	yes	yes
Other preliminary pages	no	continue numbering from previous page	no	yes
Table of Contents	yes	continue numbering from	yes	yes

		previous page		
List of Tables/Figures/Illustrations	no	continue numbering from previous page	yes	yes
Abbreviations	no	continue numbering from previous page	yes	yes
Epigraph (if it applies to the entire paper)	no	1 (if including)	yes	yes
Text of paper	yes	1 (if no epigraph) 2 (if epigraph)	yes	yes
<i>Epigraphs (if chapter-specific) are placed between the chapter title and chapter text</i>	<i>no</i>	<i>continue numbering from previous page</i>	<i>yes</i>	<i>yes</i>
Bibliography or References	yes	continue numbering from previous page	yes	yes

9. **Cover Page.** The final manuscript should include a cover page that conforms precisely to the sample and instructions in Appendix E.

FINAL PROJECT

The following items should appear in the order given for the final manuscript.

1. Cover page
2. If you wish to include a **copyright page** (with or without paying the fee to register your copyright), it should appear as an unnumbered page immediately following the cover page. The copyright page should have the following information, centered and double-spaced:

copyright by

[full name of author]

[year of degree awarded]

Students who are considering submitting a manuscript based on their project for peer-reviewed publication can add the following statement:

This paper is intended for review and comments only. It is not intended for citation, quotation, or other use in any form.

3. An **Acknowledgments** page should be included. In the final copy, it should be placed between the cover page (or copyright page, if there is one) and the table of contents.
 - a. **Disclosures:** Disclosures are required, as applicable to the project.
 - i. **Financial Support:** All forms of financial support should be disclosed.
 1. For all federal funding, including NIH and training grants, include grant number, as applicable.

SAMPLE A: "Research reported in this [publication] was supported by [name of the Institute, Center, or other funding component] [of the federal agency] under grant number [specific grant number in this format: R01GM012345]. The content is solely the responsibility of the authors and does not necessarily represent the official views of the [federal agency]."

SAMPLE B: "Research reported in this Capstone Project was supported by the NIDCD of the National Institutes of Health under grant number R01GM012345. The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH."

2. For other forms of support (e.g., foundation grants, manufacturers' support, etc.), include the source and the type of support.
 - ii. **Human Subjects Approval:** All human subject approvals should be disclosed using APA format. Include date and approval number, as applicable. **SAMPLE:** "Research reported in this [publication, release] was approved by Washington University's Institutional Review Board [approval # and date]."
- b. **Dedication:** The dedication is optional. The dedication, if there is one, may close the acknowledgments or occupy the next page. **It is customary to acknowledge the primary advisor for the project, second advisor (if applicable), and any other individuals who provided assistance.**
4. The manuscript should include a **Table of Contents**. It should list every subsequent section, plus the Acknowledgments page that precedes it.
5. If the manuscript contains tables, figures, illustrations, etc., a **List of Tables (Figures, Illustrations, etc.)** should be included, immediately following the Table of Contents. Note that such pictorial material may be laid out either vertically, like the text, or horizontally, with its bottom edge the outside edge of the page. Note also that pages devoted to tables, figures and illustrations should be counted and numbered like all other pages. Per APA guidelines, tables and figures should **not** be included in the text, but instead be placed at the end of the text after the references.
6. If the manuscript includes a list of **Abbreviations** it should appear next.
7. The manuscript may begin with an epigraph (a quotation from someone else's work); if there is an epigraph, it should appear on page 1, with the text beginning on page 2. If the epigraph pertains only to the first chapter, it should appear between the chapter title and the chapter text.
8. The manuscript should include a **References** section. Although this section is usually placed at the end of the entire text or narrative, in some cases it may be appropriate to list sources at the end of each chapter. The Table of Contents should clearly indicate where references are located. Page numbers should be in Arabic and follow the numbering of the previous pages/section.
9. Per APA guidelines, **Tables, Figures, and Appendices** should be placed after the **References** section. *If you are using another documentation format, that format's guidelines should be used.*

COMPLETION AND SUBMISSION

The dates for submission of the Project/Study to the primary advisor and second advisor for final review and edits, and for submission of the final, electronic version of the manuscript, will be published on the

PACS Academic Calendar and in Canvas. The manuscript must be submitted electronically to the PACS Office as a single document by the deadline, following all formatting instructions included here. **Late submissions may delay graduation, receipt of the diploma, and/or the externship placement.**

For important information and requirements related to the placement of the Project/Study in the digital repository of Bernard Becker Medical Library, please refer to the Digital Commons@Becker section of the PACS Student Handbook.

COPYRIGHT ISSUES TO CONSIDER

I. Your use of copyrighted material

All projects are digitized by the Bernard Becker Medical Library. Prior to submitting the final electronic copy of the manuscript to the PACS Office, students should answer the following questions:

- 1) Did the Project/Study use copyrighted material? Some examples of copyrighted material include pictures from the internet, text/graphs/figures/tables from a publication or book, text from a blog, and email correspondence.
- 2) If copyrighted material was included in the project/study, was permission obtained from the copyright holder? Acknowledging the source of the copyrighted material does not substitute for obtaining permission.

If additional guidance is needed, students are encouraged to consult the University Microfilms International (UMI) booklet, "Copyright Law and Graduate Research," available on-line in a downloadable format:

http://media2.proquest.com/documents/copyright_dissthesis_ownership.pdf .

For policies and additional information, students should refer to the copyright policies posted at <http://beckerguides.wustl.edu/audiology>. Please contact [Cathy Sarli \(sarlic@wustl.edu\)](mailto:sarlic@wustl.edu) for questions on use of copyrighted materials and how to obtain permissions.

II. Your Project's copyright protection

Your Project is protected by copyright law without your taking any action whatsoever. You may further protect your work by inserting a copyright notice in the final copy (see "Final Project" section for the format and placement of a copyright notice). You may also wish to register your copyright, which will permit you to recoup monetary damages resulting from unauthorized use of your work; it is recommended, therefore, if your Project/Study contains information potentially of monetary value, such as patentable discoveries.

PRESENTATION

All students must present their Capstone Projects to an audience of professional colleagues. The annual PACS Student Research Colloquium is the typical forum required for this presentation. The Colloquium is generally held over two days in May, with the dates published on the PACS Academic Calendar. The presentation is open to all members of the Washington University community, as well as the professional community as a whole. Each student will be assigned a 20-minute presentation slot, with 17 minutes designated for the presentation and three minutes for questions from the audience. Students are expected to follow this schedule strictly. In addition, all students are expected to be available during all sessions of the scheduled Colloquium, as individual day/time conflicts cannot be accommodated. Students should notify the PACS Office with as much advance notice as possible if there are extenuating circumstances.

PUBLICATION

Students are encouraged to consider submitting their Capstone Project for subsequent publication in scholarly or professional journals and/or for formal presentations. All such publications and presentations, including poster presentations, that include work completed as part of a Capstone Project should acknowledge the source formally using the applicable format below:

This study was completed and published as a Capstone Project and submitted as part of the requirements for the degree of Doctor of Audiology (Au.D.) in the Program in Audiology and Communication Sciences (PACS) at Washington University School of Medicine in St. Louis.

Add citation from Digital Commons here.

Portions of this study were completed and published as a Capstone Project and submitted as part of the requirements for the degree of Doctor of Audiology (Au.D.) in the Program in Audiology and Communication Sciences (PACS) at Washington University School of Medicine in St. Louis.

Add citation from Digital Commons here.

Similar recommendations are in place for the Ph.D. dissertation. Faculty advisors should also make appropriate acknowledgements for work completed as part of a Capstone Project or dissertation.

APPENDIX A

WASHINGTON UNIVERSITY SCHOOL OF MEDICINE PROGRAM IN AUDIOLOGY AND COMMUNICATION SCIENCES

COURSE SYLLABUS

<u>PACS 570 – Section TBA</u> Course Number and Section	<u>Independent Study</u> Course Title
<u>TBA</u> Days / Times	<u>Heather Grantham, Ph.D.</u> Instructor
<u>Fall 2019 – Spring 2020 / Variable, 2 hours</u> Term / Credit Hours	<u>hgrantham@wustl.edu</u> E-mail Address / Phone
<u>TBA</u> Location	<u>Arranged</u> Office Hours

I. Course Description:

Students engage in independent work on the Independent Study which demonstrates advanced critical thinking and writing skills.

II. Learning Outcomes:

Involvement in this course will enable students to:

- independently develop and carry out an Independent Study project on topics related to the field of deaf education; (MoSPE Standard 6, Quality Indicator 1)
- demonstrate original creative thought;
- demonstrate advanced analytical and writing skills;
- present and defend the Independent Study project in a professional manner. (MoSPE Standard 6, Quality Indicators 1, 4)

III. Evaluation:

Grading for this course is determined by the Director of Deaf Education Studies and is generally based upon the student's overall participation and progress, timely submission of materials, quality of the final Independent Study submitted, and the oral presentation.

IV. Schedule:

See PACS Academic Calendar for due dates.

V. Resources

a) Required text(s)

As recommended by Independent Study primary advisor.

b) Recommended text(s):

As recommended by Independent Study primary advisor.

c) Additional resources:

As recommended by Independent Study primary advisor.

VI. Additional Information

- Please refer to the PACS Student Handbook and the Guidelines for Development of the Capstone Project and Independent Study for complete policies and procedures.
- This syllabus is subject to change.

*Washington University is committed to providing accommodations and/or services to students with **documented** disabilities. Students who are seeking support for a disability or a suspected disability should contact the PACS Program Director or WUSM Dean for Student Affairs. The School encourages students with disabilities to identify themselves as early as possible in order to optimize the mobilization of resources and available accommodations.*

*All students are expected to adhere to the highest standards of academic integrity. No form of academic dishonesty will be tolerated. Academic dishonesty includes, but is not limited to, cheating on tests, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting the thoughts and/or words of another person or work previously used as your own, missing or improper citing of sources, tampering with the academic work of other students, and plagiarism. You must **always** provide adequate citation of other people's work and the source of your ideas when they are not your own in written work, PowerPoint presentations, and supplemental materials. If you have questions about what might constitute academic dishonesty, please refer to the PACS Student Handbook or speak with a member of the PACS Committee on Academic and Professional Evaluation of Students (CAPES). Additional information can be found in the University Student Judicial Code (<http://www.wustl.edu/policies/judicial.html>).*

APPENDIX B

PACS 5700 – Capstone Project (variable 3-6)
Program in Audiology and Communication Sciences
Spring 2020

Course Description

Independent work on the Capstone Project.

Learning Outcomes

Students who complete this course successfully will be able to:

Practice in a manner that demonstrates professional duty and accountability, integrity, effective communication, sound clinical reasoning with evidence-based practice, respect and concern for individuals, and collaborative practice.	<i>Standard 3.1.1A</i>
Independently develop and carry out a research project using appropriate methodology and statistical procedures on a topic related to the field of audiology	<i>Standard 3.1.2A #12</i>
Demonstrate original creative thought, as well as advanced analytical reasoning and effective written communication	<i>Standard 3.1.1A</i>
Present and defend the Capstone project findings in a professional manner	<i>Standard 3.1.1A; 3.1.2A #12</i>

<https://caa.asha.org/wp-content/uploads/Accreditation-Standards-for-Graduate-Programs.pdf>

Required Texts, Materials, or Equipment

- As recommended by advisor and secondary reader(s)

Course Grading

Final grades will be awarded based on the following:

- Grading for this course is determined by the Capstone Project's advisor and is generally based upon the student's overall participation and progress, timely submission of materials, quality of the final Capstone Project submitted, and the oral presentation.
- Final grade scale is determined by the Capstone Project's advisor.

Other Information

- Please refer to the PACS Student Handbook and the Guidelines for Development of the Capstone Project and Independent Study for complete policies and procedures.
- This syllabus is subject to change
- Assignments/Content areas in Canvas will be available for uploading all documents

University and School Policies

DISABILITY ACCOMMODATIONS: Washington University is committed to providing accommodations and/or services to students with **documented** disabilities. Students who are seeking support for a disability or a suspected disability should contact the PACS Program Director or WUSM Dean for Student Affairs. The School encourages students with disabilities to identify themselves as early as possible in order to optimize the mobilization of resources and available accommodations.

ACADEMIC INTEGRITY: All students are expected to adhere to the highest standards of academic integrity. No form of academic dishonesty will be tolerated. Academic dishonesty includes, but is not limited to, cheating on tests, fabricating information or citations, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting the thoughts and/or words of another person or work previously used as your own, missing or improper citing of sources, tampering with the academic work of other students, and plagiarism. You must **always** provide adequate citation of other people's work and the source of your ideas when they are not your own in written work, PowerPoint presentations, and supplemental materials. If you have questions about what might constitute academic dishonesty, please refer to the PACS Student Handbook or speak with a

member of the PACS Committee on Academic and Professional Evaluation of Students (CAPES). Additional information can be found in the University Student Judicial Code (<http://www.wustl.edu/policies/judicial.html>).

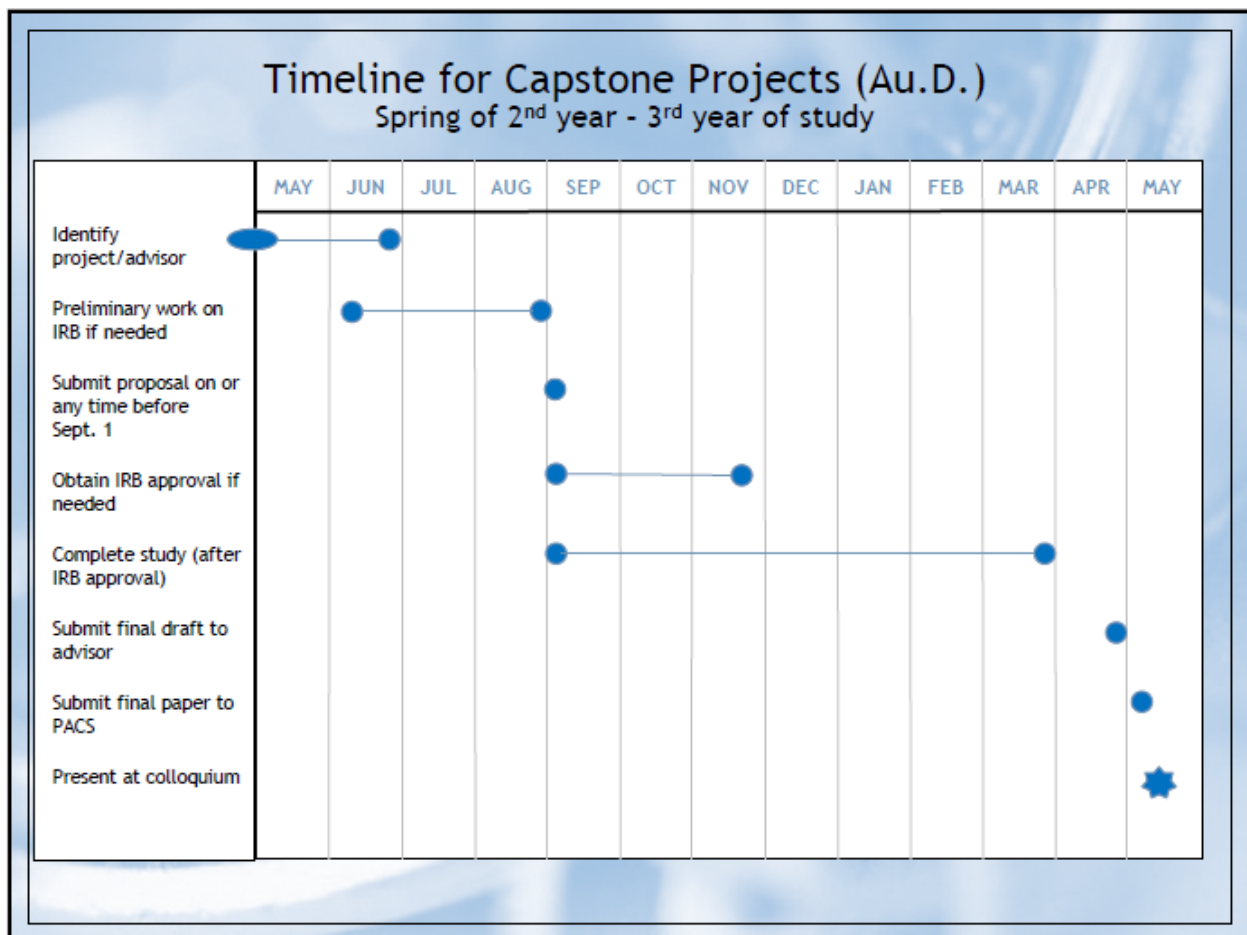
Disclaimer: The instructor reserves the right to make modifications to this information throughout the semester. Any changes will be communicated to students by the instructor.

APPENDIX C: CAPSTONE CHECKLIST

CAPSTONE CHECKLIST

- ✓ Review literature and generate possible research questions and/or project topics/ideas.
- ✓ Identify a possible primary advisor and meet with him/her to discuss your ideas. Secure his/her consent as your primary advisor.
- ✓ Identify the Second Advisor. Secure his/her consent as your second advisor.
- ✓ Develop the Capstone Project Proposal; submit this to your primary advisor and second advisor for review and signatures.
- ✓ Submit the final, signed Capstone Project Proposal to the PACS office no later than September 1st of the third year of study (the due date is published on the PACS Academic Calendar). **Students are strongly encouraged to complete this process before this deadline, and proposals will be accepted by the PACS office at any point during the student's enrollment during the first two years.**
- ✓ Upon receipt and approval by PACS of the Capstone Project proposal, including the approval of the primary and second advisors, begin work on the Capstone Project (**after all necessary University-required approvals are obtained**).
- ✓ **Obtain all University-required approvals, including those of the Human Studies Committee and/or Animal Studies Committee.**
- ✓ Complete the Project in consultation with the primary and second advisors.
- ✓ Submit the final electronic copy of the Capstone Project to the PACS office by the date indicated on the PACS Academic Calendar. Follow all formatting instructions.
- ✓ Present the Capstone Project at the annual PACS Student Research Colloquium.

Please refer to the PACS Academic Calendar for specific due dates, presentation dates, and other deadlines.



APPENDIX D: CAPSTONE PROJECT PROPOSAL INSTRUCTIONS AND EXAMPLES

The purpose of the Capstone Project (“Project”) Proposal is to summarize the preliminary plans for both the scope and procedure of the Project. The “scope” defines its limits – what you intend to cover and what you intend not to cover. The “procedure” describes the manner in which you intend to complete and/or conduct your research. The Proposal should be completed in consultation with your primary and second advisors.

The example provided should be used to guide the student.

Formatting should be as follows:

- **Margins:** One inch
- **Font:** Times New Roman, 11-12 point, normal scale and spacing (kerning)
- **Line Spacing:** 1½ lines

The first line should read “Capstone Project Proposal” and should be bolded.

Leaving one blank line after the heading, list your full name.

The next line should read “**Primary Advisor:**” followed by the full name and highest degree of your primary advisor in regular (un-bolded) text. Please refer to the advisor guidelines for acceptable advisors.

Second advisors (required for Au.D. students) and/or other participating faculty and staff members should be included on the next line, as appropriate, and should follow the same format as the Faculty Advisor line. The header for this line should reflect the role of the individual(s) listed. **This information should only be included if it applies to your project.**

The next line should read, “**Submitted:**” followed by the current date in Month Date, Year format (e.g., September 29, 2012) in regular (un-bolded) text.

Leaving one blank line after the date, list your title. This should be in bold, underlined text.

Leaving one blank line after your title, include a description of your Study/Project, along with the scope and procedure information explained above.

Leaving one blank line after the scope and procedure section, include a signature section. The student, primary advisor, and second advisor should sign the bottom of the proposal.

Proposals are generally 1-2 pages in length, but may be longer, as determined by the student, primary advisor and second advisor.

The Proposal should be submitted no later than the date published on the PACS Academic Calendar (generally the last business day in September).

It is understood that the scope, procedure and/or title of the Project may change as you complete your work. Students will be asked to provide the final title to the PACS Office before student presentations are scheduled for the PACS Student Research Colloquium.

Capstone Project Proposal

Jane Doe

Primary Advisor: Rosalie M. Uchanski, Ph.D.

Second Advisor: Lisa S. Davidson, Ph.D.

Submitted: September 29, 2012

Spectral Resolution and Speech Recognition in Pediatric Listeners with Normal Hearing

For adults with cochlear implants, new measures of spectral resolution ability are reported to be strongly correlated with speech perception scores (Henry & Turner, 2003; Henry et al., 2005; Won et al., 2007; Litvak et al., 2007). In this Capstone Project, I will determine the ability of normal-hearing children to resolve spectral information and will examine how this ability develops with age. I will also examine the relationship between spectral resolution ability and speech recognition in noise for these listeners. The data from this study will serve as normal-hearing benchmarks for future comparisons with performance from children with impaired hearing. If an eventual relationship is found between spectral resolution ability and speech recognition for hearing-impaired pediatric patients, then performance on this psychoacoustic task could become a useful, non-linguistic predictor of speech recognition for children with various device configurations, such as cochlear implants, hearing aids, or the two devices combined.

Approximately 24 children with normal hearing, ages 7-17 years, will be recruited. Each participant will complete one, two-hour test session consisting of audiologic screening, psychoacoustic tests of spectral resolution, and speech recognition in noise. For the spectral resolution task, the participant responds by choosing which stimulus of three broadband noises is the “odd man out.” These noises will have varying spectral properties like those used in recent studies (e.g., Henry et al., 2005; Won et al., 2007; Saoji et al., 2009). Speech recognition in noise will be assessed using the BKB-SIN test. Data will be compiled, and correlations between spectral resolution ability and speech recognition scores will be calculated. In addition, the effect of age on spectral resolution will be examined with a simple linear regression model.

Jane Doe

Rosalie M. Uchanski, Ph.D.

Primary Advisor

Lisa S. Davidson, Ph.D.

Second Advisor

APPENDIX E: COVER PAGE INSTRUCTIONS AND SAMPLES

The Cover Page must be included with the final manuscripts submitted for the Capstone Project (“Project”) and the Independent Study (“Study”).

Formatting is as follows:

- All margins are 1”
- Font is Times New Roman, 14 pt, bold.
- Single spaced
- Three blank lines between top margin and title
- One blank line between title, “by”, and your name
- Three blank lines between your name and the Capstone Project/Independent Study statement
- One blank line between the Capstone Project/Independent Study statement and your degree
- Four blank lines between your degree and the school
- Two blank lines each between program, date, and “approved by...” (latter is for Au.D students only)
- Three blank lines between advisor’s name and abstract. (Au.D. students only)
- Abstract should be italicized. (Au.D. students only)
- Center everything on the page.

Other instructions:

- Cover page should not exceed one page.
- List the primary and second advisors in the correct order, beginning with the primary advisor and proceeding with others in alphabetical order by last name. Titles or degrees are optional, as are departmental or institutional affiliation. (Au.D. students only)
- Use your full name.
- **Use the month, date and year in which your degree is to be conferred.**
- Everything not discussed above is required to appear just as shown on the samples provided.

[YOUR FULL TITLE HERE IN ALL CAPS]

by

[Your Full Name]

**A Capstone Project
submitted in partial fulfillment of the
requirements for the degree of:**

Doctor of Audiology

**Washington University School of Medicine
Program in Audiology and Communication Sciences**

May 21, 2021

Approved by:

**[Capstone Project Primary Advisor Name, Degree], Capstone Project Advisor
[Capstone Project Second Advisor Name, Degree], Capstone Project Advisor**

Abstract: [1-2 sentences summarizing your project.]

**ESSENTIAL CONCEPTS OF DEAF
EDUCATION**

by

[Your Full Name]

**An Independent Study
submitted in partial fulfillment of the
requirements for the degree of:**

Master of Science in Deaf Education

**Washington University School of Medicine
Program in Audiology and Communication Sciences**

May 15, 2020

Submitted to:

Independent Study Committee Members

[Committee Member Name, Degree]

[Committee Member Name, Degree]

[Committee Member Name, Degree]