

School of Chemical Engineering Honors Program Guide 2013-14



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Overview

Honors options are available for students who have demonstrated a strong academic ability and wish to conduct independent research with a faculty advisor on a research project. This research should last a minimum of two semesters (typically fall & spring semester senior year). Students may also opt to conduct research for three semesters (spring semester junior year, fall & spring semester senior year) depending on the research project. Students pursuing any of the following honors options must write, submit, and defend a B.S. Honors Thesis.

Honors Options available to students in the School of Chemical Engineering:

- **Honors College** (*effective for those students entering Fall 2013 or after*)
- **University Honors Program** (*effective for those students entering prior to Fall 2013*)
- **Chemical Engineering Departmental Honors**

Honors Options

Honors College Option

The Honors College selection process for beginning students is by invitation only. Current students can apply to the Honors College if they have a cumulative Purdue GPA of a 3.5 or above and four semester of study remaining before graduation.

Curriculum:

- 24 credits of honors coursework
 - Specific HONR courses (5 credits)
 - 2 credits of HONR 19901 & 19902
 - 3 credits of additional HONR course(s)
 - Elective honors courses (10 credits)
 - HONR courses if not meeting specific HONOR course credits
 - Courses with an honors designation
 - Courses taken with an honors contract
 - Graduate level courses that are not required for your major
 - CHE Honors courses (9 credits)

Students must reach an agreement with a faculty advisor on a research topic and complete the ChE Honors Program Application prior to enrolling in the following courses:

 - CHE 49800: Honors Research in Chemical Engineering I
 - CHE 49900: Honors Research in Chemical Engineering II
 - CHE 54000: Transport Phenomena
- A thesis or scholarly project

Students in the Honors College must have a cumulative GPA of 3.5 or higher and have completed all Honors College requirements to graduate with honors. Students whose cumulative GPA drops below a 3.5 for two consecutive semesters will no longer have priority registration, be provided with Honors College supplemental advising or be guaranteed the option of completing a thesis or scholarly work under

faculty supervision. Honors College privileges will be reinstated if the student's cumulative GPA rises above a 3.5.

University Honors Program Option

Students who were admitted to the University Honors Program prior to the fall 2013 may continue to pursue the previous honors program requirements. To graduate with the UHP option, students must have a cumulative GPA of 3.6 or higher and have completed all 24 honors points/credits to graduate with honors.

Curriculum:

- 24 honors points/credits
 - Courses with an honors designation
 - Courses taken with an honors contract
 - Graduate level courses that are not required for your major
 - CHE Honors courses (9 credits)

Students must reach an agreement with a faculty advisor on a research topic and complete the ChE Honors Program Application prior to enrolling in the following courses:

- CHE 49800: Honors Research in Chemical Engineering I
- CHE 49900: Honors Research in Chemical Engineering II
- CHE 54000: Transport Phenomena

Chemical Engineering Departmental Honors Option

Students may apply for the Chemical Engineering Departmental Honors program after reaching an agreement with a faculty advisor on a research topic and the following requirements have been met:

- Must have a 3.5 overall GPA
- Must have completed the following courses with a grade of a B- or better on the first attempt in the course:

ENGL 10600	MA 26100	CHE 20500	CHE 37700
COM 11400	Math Selective I	CHE 21100	CHE 37800
PHYS 24100	Math Selective II	CHE 34800	

Note: Students may be accepted into the program prior to enrolling in the above courses upon approval from the faculty advisor and Head of the Chemical Engineering Honors Program. Acceptance will be contingent on earning a grade of a B or better in the untaken course.

Curriculum:

- CHE 49800: Honors Research in Chemical Engineering I
- CHE 49900: Honors Research in Chemical Engineering II
- CHE 54000: Transport Phenomena

Honors Courses

HONR Courses

To fulfill the honors diploma requirements, students must earn a total of 5 credits for specific HONR courses. Additional HONR courses may be taken to complete the Elective honors course requirements. The options for these interdisciplinary seminars change each semester. The current course offerings may be found on the [Honors College site](#).

- HONR 199 courses are designed for first and second-year students only
- HONR 299 and 399 courses are open to all high ability students

**The School of Chemical Engineering will accept HONR courses to fulfill general education elective credit towards the Chemical Engineering degree.*

Honors Sections

Several schools/colleges offer honors sections of courses. These courses will be noted with “Honors” in the course title, or H next to the course number within the schedule of classes listed on My Purdue.

Contract Courses

An honors contract is available for students and faculty instructors to agree upon to incorporate an honors project into a regular, non-honors course to earn honors credit.

Deadline for Contracting a Course

The honors contract and form 23 must be submitted to the honors unit of the college offering the course by the Friday of the second week of classes.

Dropping a Contract

The honors contract cannot be dropped after the 9th week of the semester. At that point in time, students must either complete the honors project to receive a grade in the course or file an incomplete for the entire course.

Honors Contract Description and Agreement

Deadline: Friday of the 2nd week of classes

An honors contract is a binding agreement between the student and the faculty member. A student should not register for an honors contract if he/she is not sure that he/she will complete it. Honors contract courses should satisfy more rigorous standards than are generally expected by the non-honors syllabus. Students should expect to produce work of elevated quality and to meet regularly throughout the semester with their faculty instructor.

Work undertaken for an honors contract is separate from and in addition to the work regularly assigned for the course. For this reason, increasing the length or difficulty of regular course assignments does not constitute an honors contract course. The student's course grade reflects only the student's work in the course itself, including all regular course assignments and exams detailed in course syllabus; it does not include honors contract work. Honors credit will be awarded separately from the course grade upon satisfactory completion of honors elements (i.e., HONORS will appear at the end of the course title on transcript).

Directions: Please supply the information requested below to the dotted line. Please attach one or more sheets that describe in detail the contract objectives and the deliverables that the student must submit for satisfactory completion of the contract; include specific metrics and deadlines. Attach an honors syllabus if available.

Student: Please certify these statements by checking each box:

I qualify for honors coursework at Purdue (3.0 g.p.a or above) I am working with a professor.

Honors Contract Course for (please circle one) FALL / SPRING / SUMMER semester, 20 _____

Subject _____ Course Number _____ Section _____ CRN(s) _____

Student and Faculty: I hereby agree to the attached contract objectives, deliverables, and deadlines.

Student Signature

Faculty Signature

Student Name (please PRINT)

Faculty Name (please PRINT)

Student E-mail _____@purdue.edu

Faculty E-mail _____@purdue.edu

Student Telephone No.

(765) _____
Faculty Telephone No.

Honors Approval Signature Date

SUBMIT THIS FORM—signed by both student and instructor—to the honors unit or honors representative of the college offering the course being contracted. (See back of this form for submission locations by college)



College Honors Units

Please submit signed honors contract paperwork and Form 23 to the appropriate office:

College of Agriculture

Professor Marcos Fernandez, Associate Dean for Academic Affairs
Agricultural Education, Room 121

College of Education

Professor Teresa Doughty, Associate Dean for Academic Affairs
BRNG 6121

College of Engineering

Professor Eric Nauman, Director of Engineering Honors
Engineering Honors Office, Hampton Hall of Civil Engineering, G293

College of Health and Human Sciences

Professor Tom Berndt, Senior Associate Dean for Academic Affairs and Administration
Stone Hall, Room 110

College of Krannert School of Management

Professor Charlene Sullivan, Associate Dean of Undergraduate Programs
KRAN 128

College of Liberal Arts

Professor Kristina Bross, Director of Liberal Arts Honors
CLA Honors Office, BRNG 1174

College of Pharmacy

Professor Holly Mason, Senior Associate Dean of Pharmacy
RHPH 104

College of Science

Ranac Wetli, Administrative Assistant to Associate Deans Francisco & Minchella
MATH 931

College of Technology

James Mohler, Associate Dean for Academic Affairs & Diversity
KNOY 150

Veterinary Medicine

Professor Kathleen Salisbury, Associate Dean for Academic Affairs
Dean's Office, Lynn Hall

ALL CONTRACTS GO TO THE COLLEGE OFFERING THE COURSE BEING CONTRACTED

Honors Contract Procedure

An honors contract is an agreement between you and faculty instructor that allows you to incorporate an honors project into a regular, non-honors course and to earn honors credit for completing that course. Honors contract paperwork is due at the end of the 2nd week of classes.

There are two pieces of paperwork:

1. The Honors Contract Form, available from the Honors College Office or website, or the honors units of the disciplinary colleges
2. Registrar Form 23

Here is how the process works from your end:

1. You approach the professor of a course you are taking and ask if he or she is willing to undertake an honors contract with you. (Please understand that your professor is under no obligation to agree.)
2. If the professor is willing, you start discussing a project. Projects can look like many things, from traditional research papers to service learning projects. Some students do field or lab research, others compose or create. Use your imagination to develop a project that extends your learning in the course.
3. You make an appointment with your advisor to pick up a form 23, which your advisor needs to sign.
4. You take the signed Form 23 and the Honors Contract Form to your professor, who signs them both. You fill out the proposal together. A successful proposal is precise in terms of its expectations, outcomes, and deadlines.
5. You take both signed forms to the honors unit or honors representative of the college offering the course you are contracting. The deadline is the 2nd Friday of classes.
6. If your contract is approved, you will be notified by email. Once the honors grade mode has been processed in the Registrar's Office, you will see an "H" instead of a "G" in the "honors grade mode" section of your detailed course schedule. (After the contract is fulfilled and the course completed, "honors" will appear in the title of the course and on your transcript.)
7. Work steadily on your contract assignments throughout the semester.
8. Meet regularly with your professor throughout the semester.
9. Meet all contract deadlines.
10. Please remember that you cannot drop the honors contract after the withdrawal deadline; you must instead take an incomplete in the course until the contract work is complete. (This is because honors grade mode is locked in after the deadline for last withdrawal; the H cannot be separated from the grade in the course after this point.)

Guidelines for Progress towards Honors Thesis

Those students who enter the final stage of the honors program must find a faculty advisor before registering for CHE 49800: Honors Research in Chemical Engineering I.

In consultation with your faculty advisor,

- You must find a faculty member who will serve as a reader in your committee by **Friday, October 25, 2013**.
- You may find a graduate student who will serve as an informal advisor.

The following items are suggested to be handled at the discretion of your faculty advisor:

- Progress Report 1
 - *Suggested due date: Friday, October 25, 2013*
 - Submit a one page progress report via e-mail, to your faculty advisor and reader summarizing the proposed research, rationale of the project, and any preliminary results.
- Oral Presentation to your faculty advisor (and graduate advisor if applicable)
 - *Suggested due date: Friday, November 15, 2013*
 - The presentation should include research goals, important applications of the work, previous knowledge in the field, objectives of the present work, experimental part proposed (if experimental work is to be carried out), details on experiments to be performed, and results.
- Progress Report 2
 - *Suggested due date: Friday, December 6, 2013*
 - Submit a two page progress report via email, to your faculty advisor and reader.
- Progress Report 3/Oral Presentation
 - *Suggested due date: Friday, March 7, 2014*
 - Submit an updated two page progress report via email, to your faculty advisor and reader or oral presentation with your updated information. **Please note these reports are expected to be more advanced and more comprehensive than the previous ones.*

Please note the following deadlines:

- The Thesis Committee Information form is due **Friday, January 17, 2014** in the Undergraduate Office.
- Your final **written Honors (B.S.) Thesis** should be defended by **Friday, April 25, 2014**.
 - Please schedule your oral presentation time for one hour with your faculty advisor and reader.
 - Your thesis is due to the reader for a review at least three business days before the exam.
 - After the oral presentation, your committee will need to approve and sign the following forms:
 - **Thesis Acceptance**
 - **Written Thesis Approval**
 - **Oral Presentation Approval**
 - If the written Thesis needs revisions, they should be defined the day of the oral presentation.
- The forms listed above and a copy of your thesis must be submitted to the Undergraduate Office by **Friday, May 9, 2014**.



Honors Program Application

Applicant Name: _____

Anticipated Graduation Date: _____

Student Information:

I certify that I have taken the following courses and I have obtained the following grades upon completion of the first registration of the course.

Course	Grade	Semester Completed
ENGL 10600		
COM 11400		
PHYS 24100		
MA 26100		
Math Selective I		
Math Selective II		
CHE 20500		
CHE 21100		
CHE 34800		
CHE 37700		
CHE 37800		

My present GPA is _____ at the end of the _____ semester of academic year _____.

Student's Signature: _____

Faculty Information:

Faculty Advisor: _____

Tentative Thesis Title: _____

Expected Time Commitment by Student: _____ (hrs/wk)

Frequency of regularly scheduled meetings with faculty advisor _____

Faculty signature: _____



Thesis Committee Information

Name: _____

Thesis Title: _____

Committee Information:

Faculty (Research) Advisor: _____

Graduate Student Advisor: _____

Reader: _____

Reader Signature: _____ Date: _____



Thesis Acceptance

This is to certify that the thesis presentation and written thesis prepared by

By _____

Entitled _____

complies with the School of Chemical Engineering regulations and meets the standards of the School of Chemical Engineering Honors Program for quality.

For the degree of: Bachelor of Science in Chemical Engineering with Honors

Is approved by the final examining committee:

is
This thesis is not to be regarded as confidential. _____
Faculty Advisor

Approved by: _____
Chair, CHE Honors Program Date



Written Thesis Approval

This is to certify that the written thesis prepared

By _____

Entitled _____

complies with the School of Chemical Engineering regulations and meets the standards of the School of Chemical Engineering Honors Program for quality.

For the degree of: Bachelor of Science in Chemical Engineering with Honors

Is approved by the final examining committee:

Format Approved by:

_____ or _____
Chair, CHE Honors Program Thesis Format Advisor

Approved by: _____
Chair, CHE Honors Program Date



Oral Presentation Approval

This is to certify that the thesis oral presentation prepared

By _____

Entitled _____

complies with the School of Chemical Engineering regulations and meets the standards of the School of Chemical Engineering Honors Program for quality.

For the degree of: Bachelor of Science in Chemical Engineering with Honors

Is approved by the final examining committee:

Approved by: _____
Chair, CHE Honors Program Date



Thesis Guidelines

Below is a summary of the required depositing procedures and format requirements of the B.S. Honors Thesis. The Honors Thesis guidelines are based upon the required format for Theses submitted to the Graduate School of Purdue University. More detailed information can be found in Chapters 2 and 6 in the Graduate Thesis Manual.

(<http://www2.itap.purdue.edu/GradSchool/downloads/thesis/graduate-thesis-manual.pdf>).

Procedures for Depositing the Honors Thesis

One copy of the Honors Thesis must be submitted to the Chemical Engineering Undergraduate Office by the end of the spring semester of your senior year. Please see the deadline sections for an exact date. This copy must be bound in a black three-hole screw-post binder with a backing strip (service available at the Boiler Copy Maker, PMU room 157).

A second copy should be submitted to your Thesis Advisor. This copy may be bound by any method specified by the Thesis Advisor.

Honors Thesis Format Requirements

Paper Requirement

White paper must be used. The paper size should generally be standard, eight and a half by eleven inches.

Typeface and Quality

Only one typeface may be used throughout the thesis. All text, page numbers, table numbers, figure numbers, captions, references, and footnotes must be in the same typeface. For general text, the type size should be 12 points. Variations of the basic typeface and size may be used for symbols or emphasis when appropriate.

Spacing

The vertical spacing of all thesis text, including bibliographic references, should be four lines of text per vertical inch (three lines per inch is acceptable). Long quotations, headings, and captions may be printed at six lines per inch (single-spaced). Multi-lined and subdivision headings, figure and table captions, footnotes, and endnotes normally are printed six lines of text per inch.

Margins

The following page margins must be observed:

Left Page Margin 1.5 inches
Right Page Margin 1.0 inch
Top Page Margin 1.0 inch
Bottom Page Margin 1.25 inches

All tables and figures, including their captions, must conform to the margin requirements.

Page Numbering

Every page of a thesis that includes typing or drawing is numbered. Except for the title page, page numbers must be placed on each page of the manuscript. Preliminary pages are numbered consecutively in lowercase Roman numerals. The text and all reference pages, including appendices, are numbered consecutively using Arabic numerals (beginning with 1 on the first page of the text).

The number usually is placed in the upper right corner, one-half inch below the top edge of the page. The last digit of the page number is even with the right margin. The title page is the first numbered page (Roman numeral “i”). The numeral “i”, however, does **not** appear on the title page. The page following the title page is the first page that has a number (Roman numeral “ii”). The word “page” never accompanies the number.

Title Page (Required)

The title page must include the full, official title of the thesis, your full name as it appears in the University records, the title of the degree awarded, and the date the degree is awarded (see **Figure 2**).

The degree title is “Bachelor of Science in Chemical Engineering with Honors”. The date is the month and year that the degree is actually awarded (e.g., May 200X).

Table of Contents (Required)

A Table of Contents is required (see **Figure 3**). The heading TABLE OF CONTENTS, in capital letters, is centered between the left and right margins, without punctuation or underlining, two inches from the top of the page. The list begins at the left margin, three blank lines below the heading. All material following the Table of Contents is listed in it. No preceding material is listed. The headings of parts, sections, chapters, and their principal subdivisions are listed in the Table of Contents and must be worded exactly as they appear in the body of the thesis. When listing the subdivisions, list the same levels of headings and subheadings consistently for each chapter. Dotted leaders are required between headings and page numbers. If the Table of Contents continues beyond one page, allow a one-inch top margin on successive page(s). The word Page should be

typed above the listing of the page numbers. Number the Table of Contents pages in lowercase Roman numerals.

List of Tables and List of Figures (Optional)

The heading LIST OF TABLES, in capital letters, is centered between the left and right margins, without punctuation or underlining, two inches from the top of the page. Number the List of Tables page in lowercase Roman numerals. The list begins at the left margin, three blank lines below the heading. The List of Tables contains exactly the same numbers and captions as appear above the tables in the text and in the appendices. If the List of Tables continues beyond one page, allow a one-inch top margin on the following page(s). The format for the List of Tables is the same as for the Table of Contents. Type the word Table above the listing of the table numbers and captions. Type the word Page above the listing of page numbers.

The heading LIST OF FIGURES, in capital letters, is centered between the left and right margins, without punctuation or underlining, two inches from the top of the page. Number the List of Figures page in lowercase Roman numerals. The list begins at the left margin, three blank lines below the heading. The List of Figures contains exactly the same numbers and captions as appear below the figures in the text and in the appendices. If the List of Figures continues beyond one page, allow a one-inch top margin on successive page(s). The format for the List of Figures is the same as for the Table of Contents. Type the word Figure above the listing of figure numbers and the word Page above the listing of page numbers.

Abstract (Required)

An abstract consisting of two paragraphs is required (see **Figure 4**). The first paragraph contains your name as it appears on the title page but with the last name first, the abbreviation of the degree title, the name of the institution granting the degree, the month and year the degree is awarded, the exact title of the thesis, and the name of the Honors Thesis Advisor. The second paragraph is a summary of the research, not to exceed 350 words. The first paragraph of the abstract is printed at six lines per inch (single-spaced). The spacing used in the summary paragraph must be the same as the spacing in the rest of the text. The 350-word limit of the abstract does not include the first paragraph. Mathematical formulas, diagrams, and other illustrative materials are not recommended for the abstract.

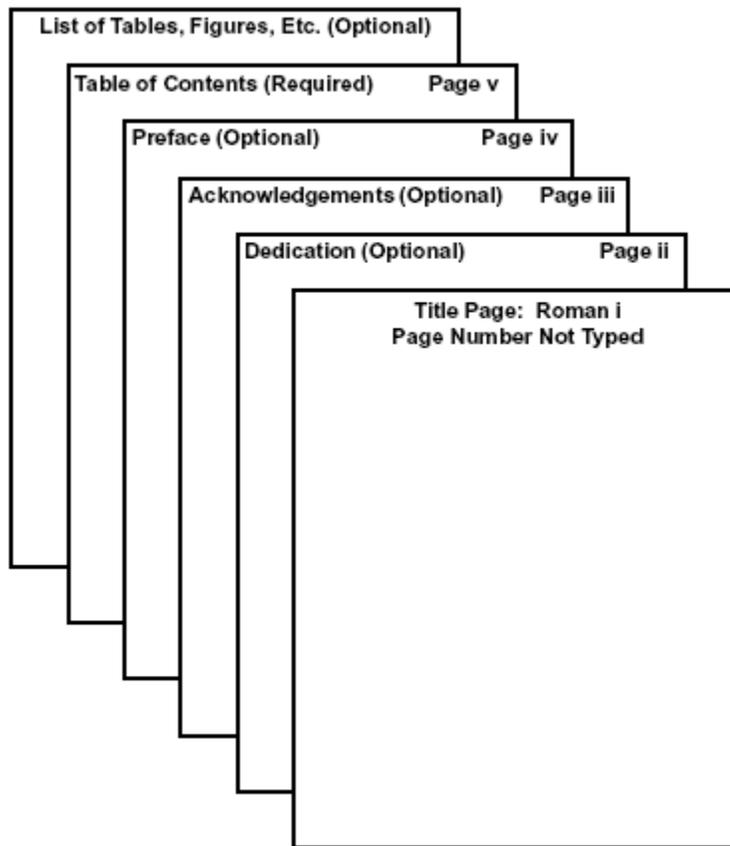


Figure 1: Order of Preliminary Pages

THE EFFECTS OF
AGE AND EXPERTISE
ON MEMORY

An Honors Thesis
Submitted to the Faculty
of
the School of Chemical Engineering
of
Purdue University
by
Dea K. DeWolff

In Partial Fulfillment of the
Requirements for the Degree
of
Bachelor of Science in Chemical Engineering
with Honors

Figure 2: Title Page

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Figure 3: Table of Contents

“Major Professor” should be replaced by “Honors Thesis Advisor” in the first paragraph of the Abstract. “Ph.D.” should be replaced by “B.S.ChE”

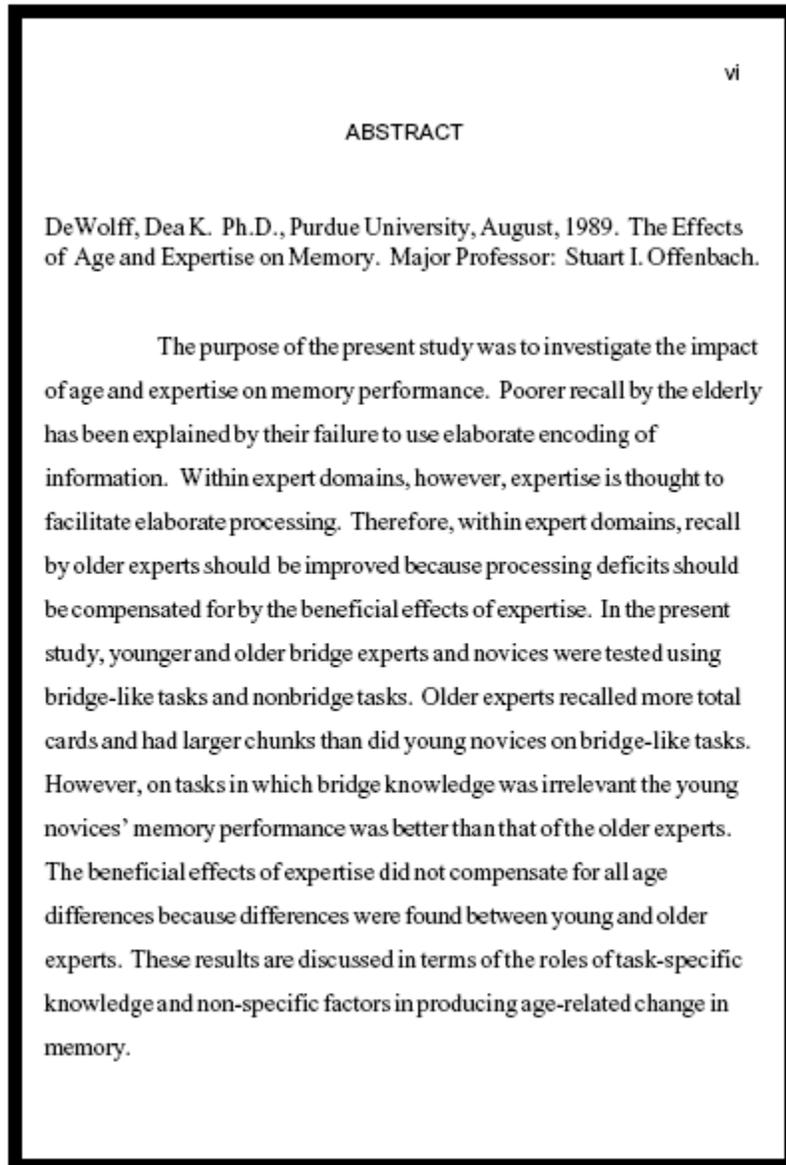


Figure 4: Abstract