



# 499 POLICIES AND PROCEDURES

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Office of Undergraduate Research

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8/20/2015

## 499 OVERVIEW

Beginning in 2012, the college implemented a quality enhancement program that seeks to significantly increase the number of students who participate in undergraduate research. Students seeking to pursue undergraduate research for credit will identify a faculty mentor who will support and facilitate the research initiative, including the completion of one or more courses in which research is the focus. These “RISE” courses are available across the college’s academic offerings. “Rise” courses are available in all academic disciplines. Courses are numbered 499A, 499B, and 499C.

This faculty-mentored set of independent research courses will allow for an in-depth study of a specific question and/or the development of a creative, original work relevant to the discipline. At the successful conclusion of three credit-hours (499 A, B, and C) students will have submitted a substantive paper with bibliography and will have publicly presented their findings.

**499A:** Students enrolled in 499A are considered to be in the “formative” stage of their research project. Students should enroll in 499A if they are in the early stages of forming their project ideas and when considerable work still needs to be done before new knowledge or creative works can be started. By the end of the 499A, students should have a well-developed plan in the form of a research proposal. Depending on the discipline, students may do any of the following kinds of activities: a) find and read relevant literature, b) develop an annotated bibliography, c) identify key methods, theories, or models to guide the project, d) develop foundational research skills, e) attend research planning meetings, f) shadow or assist more advanced researchers, g) observe or read about similar projects, etc.

**499B:** Students enrolled in 499B are considered to be in the “productive” stage of their research project. Students should enroll in 499B if their project idea is well-formed and the student has the necessary background information and skills to begin the hard work of carrying out their planned project. Students in 499B are expected to have a research proposal at the time of enrollment and are expected to have an abstract of their research findings by the end of the semester. Depending on the discipline, students may do any of the following kinds of activities as part of the 499B: a) collect data, b) write, c) create, d) initiate contacts with participants/agencies, e) get IRB approval if necessary, f) organize the data, g) establish reliability and validity of methods, etc.

**499C:** Students enrolled in 499C are considered to be in the “culminating” stage of their research project. Students should enroll in 499C if their project is largely done and ready for final presentation. At the time of enrollment, they should have an abstract and a plan for presenting their project. Depending on the discipline, students may do any of the following kinds of activities as part of the 499C: a) analyze data, b) write conclusions, c) finalize project/paper, d) submit for conference, e) prepare presentation, f) attend and present at a conference, g) submit for publication, etc. Regardless of the discipline, students enrolled in 499C are expected to have a written paper with bibliography either as their final product or as an accompanying description of their project. Students in 499C are also required to make their project public through a presentation at an appropriate public venue. This may be accomplished in any of the following ways: giving an oral or poster presentation at a conference, giving a gallery talk, or putting on a performance. Students are encouraged to present at the annual Milligan Research Forum starting spring of 2014 to meet this requirement. Students who have completed or are in the process of completing a 499C are eligible to apply for the Outstanding Undergraduate Research Project Award each spring. The winner will be recognized with a certificate and a cash prize at the spring awards convo. The deadline for submission is the end of March to allow time for judging.

## DEFINING UNDERGRADUATE RESEARCH

Undergraduate research is a student-faculty collaboration to examine, create and share knowledge or works to address a research question or topic in ways consistent with practices in the discipline (CUR “How to Develop and Administer Institutional UR Programs”). Another definition is “faculty-mentored, independent student projects with a clear product.” (Strikwerda, 2009; CUR Quarterly). At the core of both definitions is the idea that undergraduate research is a mentored or collaborative process. It is also more about the *research experience* than about a research product. Unlike graduate research where the goal is more likely to be a new discovery or new interpretation, undergraduate research is more about acquiring the skills and process of inquiry, discovery and creativity within a discipline.

## STUDENT BENEFITS

Mentored research courses are intended to allow students who pursue targeted, independent research in any discipline to have their undergraduate research work formally recognized on their transcripts. Enrollment in any 499 segment will give students access to limited funds to help offset the cost of their research and its presentation. Students enrolled in 499 will be recognized at the spring awards convocation and will be eligible for recognition as an outstanding student researcher. Most importantly, through 499 courses, students will be partnered with a faculty-mentor of their choosing who can guide them through the entire research process. Mentored undergraduate research is known to benefit students in many ways, including professional development, career advancement, preparation for graduate school, and personal growth.

## RISE Above Implementation Committee

The RISE Above Implementation Committee is tasked with providing oversight and advice regarding the RISE Above program. Chaired by the Director of Undergraduate Research, the committee shall be composed of at least five additional faculty members representing each of the five academic areas. The committee will help organize the annual undergraduate research conference, make decisions as needed about student enrollment in mentored research courses (499), vote on student and faculty recipients for the annual undergraduate research awards, and facilitate other campus research events as needed.

## ENROLLMENT

### ENROLLMENT OVERVIEW:

Individual students may register for 1-3 hours of 499 course credit in the fall, spring, or summer semesters and may earn a total of **3** hours of 499 credit to count towards graduation requirements. Students who wish to engage in more than 3 hours of 499 are subject to committee approval. Enrollment in any sub-section of 499 courses requires completion of COMP 211 or its equivalent. It is anticipated that some students may desire to complete only one or two segments of 499, as a complement to other advanced courses. In such cases, the faculty-mentor and area chair will determine the appropriate 499 credit or credits for which the student should register. Faculty and/or area chairs may also require students to have additional pre-requisite courses before enrolling in a 499.

### ENROLLMENT PROCEDURE

Students planning to enroll in 499 must identify a faculty mentor and fill out a 499 Proposal Form, which must be signed by the student, faculty mentor, and area chair before being submitted to the Office of Undergraduate Research (OUR). One member of the RISE Above Implementation Committee (RAIC) from a related discipline may be assigned to review the proposal and make recommendations for approval or modification. Upon approval, **the Director of Undergraduate Research will then notify the Registrar to finalize the students’ registration for any 499 credits.** Students and mentors

will be notified by email when their proposal has been reviewed and approved. **No additional paperwork is needed to get registered.** A list of all students enrolled in 499 courses will be sent to the Academic Dean's office at the beginning of each semester.

A note about students working with graduate faculty: Students who wish to work with graduate faculty, such as Occupational Therapy, must fill out a separate application (see form in the appendix) and submit that to the Director of Undergraduate Research. This application will be forwarded to the graduate faculty who will then contact the student about possible projects and their willingness to mentor. Enrollment then proceeds as described above.

## **ENROLLMENT DEADLINE**

Applications for enrollment in 499 will be taken through the end of the semester preceding the 499 work and registration must be finalized before the drop/add deadline. No guarantee can be made that proposals submitted after that will be reviewed in time to meet the registration deadline.

## **FACULTY COMPENSATION AND LOAD POLICY:**

Milligan College values the experience students receive by participating in faculty-mentored research and desires to support faculty who provide students with high quality, intensive research opportunities. Establishing a robust undergraduate research program requires that faculty have adequate time and resources to mentor students and that they are fairly compensated and recognized for this important work. As part of the effort to support, compensate for, and recognize the intensive work of mentoring, the 499 course designation for research in each discipline was developed.

Faculty will receive a stipend for any 499 credits mentored above their contracted load and should not accumulate more than 12 student 499 credit hours between any two consecutive semesters/sessions. Stipends will be paid at the end of the semester during which mentoring is taking place based on a rate of \$300 per student hour. Faculty must inform their area chair and the director of the Office of Undergraduate Research (OUR) of their intent to mentor a student at the beginning of the semester during which the mentoring will take place. Area chairs will monitor 499 registration requests submitted by faculty members to provide timely guidance and advising if a faculty-mentor approaches more than 6 credits in a given semester. The academic dean, in consultation with the appropriate area chair, may choose to limit further the load of a faculty member teaching 499 hours for such reasons as deemed to be in the best interest of the College, the mentor, and his/her student researchers.

The OUR will assist area chairs and faculty-mentors with tracking the number of student hours earned and will initiate stipend requests. The OUR will also provide the Vice President for Academic Affairs and area chairs with periodic 499 mentoring reports so that the number of research hours in each discipline may be monitored.

## **499 EXPECTATIONS**

### **MEETINGS**

Because the 499 course is a mentored experience, faculty are expected to communicate regularly with student researchers. While some communication may occur by remote means (email), face-to-face meetings will be essential to the success of the project. A minimum standard is as follows: faculty should meet face-to-face at least 3 times per semester for a 1 credit hour course, 5 times per semester for a 2 credit course and 7 times per semester for a 3 credit hour course. A general rule for students is that they should plan to devote 2-4 hours per week for each credit of 499 they take. Faculty mentors should expect to devote at least 1 hour per week in mentoring each 499 student credit hour.

## **SYLLABUS AND RUBRICS**

Faculty-mentors may use the 499 Syllabus Template (found in the appendix) to specify their expectations and requirements. As with all course syllabi, a copy of the 499 syllabus should be sent to the Academic Dean's office at the beginning of each term. Example rubrics have been developed for use with the 499A, B and C. Faculty should use these rubrics if appropriate to their project. Faculty may modify the rubrics to fit their discipline-specific project, however. Modified rubrics should be sent to the Director of Undergraduate Research for future use by other faculty members. The Director of Undergraduate Research may also request that faculty fill out rubrics or other assessments at the end of the semester to track student learning outcomes related to the Quality Enhancement Plan and for use in Institutional Effectiveness Plans.

## **REQUIREMENTS**

499A: A research proposal is required by the end of the semester during which a student is enrolled in 499A. It should contain the necessary information to fill out the 499B enrollment form. If they do not plan to enroll in 499B, they should still submit a research proposal to the director of undergraduate research as evidence of meeting the minimum requirements of the 499A course.

499B: An abstract describing the study and findings is required by the end of the term during which a student completes a 499B. If applicable, this abstract will be attached to the 499C enrollment form and used for applications to conferences.

499C: Students in 499C must have a final paper. In cases where a paper is not the final research product, there must still be a summary paper with bibliography to accompany and support the project. Students in 499C must also present their research in an appropriate public venue. Starting in the spring of 2014, 499C students will have the opportunity to present at the annual Research Forum as an option for fulfilling this requirement. Students are welcome and encouraged to present their research at other discipline-specific conferences as well. Faculty mentors will be instrumental in helping students identify the most appropriate venue for their presentation.

499C Archived Projects: The 499C paper must be turned into the OUR along with any other artifacts of the project that can be converted to digital form (e.g., PDF copies of posters, outlines of PowerPoint presentations, digital copies of video/photos). Students are responsible for giving their faculty mentors copies of their projects so they can be archived in the college's digital repository, **MCStor**. The Digital Materials Submission form should be filled out and submitted along with the final paper (see appendix). The OUR will contact faculty mentors at the end of each semester to collect information about progress on the project for its internal assessment.

## **STUDENT LEARNING OBJECTIVES**

The 499 course sequence is designed to address four levels of learning specified through five learning outcomes related to undergraduate research. It is expected that virtually all Milligan College graduates will have achieved the first 3 student learning outcomes. The 499 course sequence is designed to increase the number of students who complete a mentored research project and follow through on sharing the results of the project through a public presentation. Faculty are encouraged to incorporate the following learning outcomes into their 499 syllabus.

### **LEVEL ONE—VALUE**

**SLO 1:** Students will value participating in research activities.

### **LEVEL TWO—EXAMINE**

**SLO 2:** Students will possess the skills to find, evaluate, and document sources relevant to a research question.

### **LEVEL THREE—CREATE**

**SLO 3.1:** Students will demonstrate the ability to craft a research proposal.

**SLO 3.2:** Students will demonstrate the ability to complete a mentored research project.

### **LEVEL FOUR—SHARE**

**SLO 4:** Students will demonstrate the ability to publicly present their scholarly research in a manner consistent with practices in their discipline.

## **ETHICAL CONDUCT OF RESEARCH**

All research projects must be conducted in an ethical manner. Faculty mentors are the first line of defense and should ensure that appropriate ethical practices are followed throughout the entire research process. In some projects, it will be necessary to get approval from the Milligan College Institutional Review Board (IRB). The IRB approves any research on humans conducted on or by anyone affiliated with Milligan College. Some projects may be exempt from review, others may need to go through expedited review and some projects may need to be reviewed by the full committee. It is the responsibility of the student, in consultation with the faculty mentor, to determine what level of review is required and to follow through on getting approved before starting the research. Policies and procedures for the IRB can be found on the Milligan College webpage under the Academic Offices and Resources link. IRB approval is not required before enrolling in 499, but faculty mentors and students may be asked how they plan to ensure ethical procedures will be followed.

## **DIFFERENCES BETWEEN 499 AND 490**

Some majors offer independent studies courses or other courses that are very similar to the 499 course. These courses may be identical in focus and outcome. Academic advisors will be important to the process of determining whether a 499 is the most appropriate course for a student given their major or research interests. One area where there is often confusion is the fine arts. The following descriptions may be helpful to students majoring in any of the fine arts:

- The purpose of the fine arts 490 project is to allow the student, under the direction of a fine arts faculty mentor, to continue further artistic work in a specific medium. The goal is the independent creation of a limited body of creative work and may or may not include an exhibition or a significant research component.
- Research is an important component of the fine arts 499 project regardless of whether or not the student presents an artistic exhibition. The fine arts 499 requires a significant exploration of a new research topic or research which results in a creative project which will help shape a final paper or an artistic exhibition or performance.

## **RESOURCES**

### **COUNCIL ON UNDERGRADUATE RESEARCH**

The Council on Undergraduate Research (CUR) was founded to highlight and promote research done by undergraduates at both large and small institutions. CUR advocates and supports undergraduate research by enhancing research opportunities, supporting faculty development, providing resources for students, publishing books and journals detailing how to initiate and maintain undergraduate research programs, and advocating for more undergraduate research opportunities with organizations and governmental agencies. In 2012, Milligan College became an enhanced member of

CUR, which provides every faculty member individual membership in CUR. CUR sponsors several workshops and conferences each year, which can benefit both faculty mentors and student researchers. Faculty mentors are encouraged to take advantage of this membership and the resources available through CUR. The OUR can provide information about how to join.

In addition to undergraduate conferences, such as Posters on the Hill, students can take advantage of other CUR benefits, such as the Registry of Undergraduate Researchers. The purpose of this registry is to facilitate matchmaking between undergraduates who have research experience and a desire to pursue an advanced degree, with graduate schools seeking high quality students who are well prepared for research. Undergraduates may go to [http://www.cur.org/projects\\_and\\_services/registry/](http://www.cur.org/projects_and_services/registry/) to fill out a simple information form. Students may also elect to complete a longer curriculum vitae form. There is no charge to the student and records will be made available to bona fide Graduate Schools that contract with CUR for this service.



## **WEBSITE AND SURVEY MONKEY**

There are number of resources on Milligan's OUR website including links to up-coming conferences, undergraduate journals, the Institutional Review Board website, discipline-specific resources, grant-funding opportunities, and copies of all forms and policies.

The OUR has a gold subscription account to Survey Monkey. This resource is available to any 499 student researcher. To obtain the username and current password, faculty mentors should submit a request to the OUR. The password will be reset periodically to limit access to the account. Please be respectful of other faculty and students who may be using the account by only viewing or modifying your own surveys and by logging off after each use. Surveys and data will be purged from the account annually, so please download and save your data as soon as you are done. You may, however, request that your survey be preserved for on-going or future use. An attempt will be made to notify all users before purging the account of old surveys.

## **CAMPUS-WIDE RESEARCH FORUM**

Starting in the spring of 2014, a campus-wide research forum will be held to provide a venue for students to present their research. This one-day event will showcase the 499 projects carried out across all disciplines. The forum will provide all 499 students with an opportunity to share their results in a high-quality, but low-pressure setting. Students in 499C will be encouraged to present at this forum but will not be required if they present elsewhere.

## **MCSTOR**

MCStor serves as Milligan College's digital repository intended to capture, distribute, and preserve scholarly work created by faculty, staff, and students at Milligan College and provides access to digitized materials of the Milligan College Archives and Special Collections. By offering a central location for depositing these materials, MCStor makes them available to a wider audience and helps assure long-term preservation.

## **WORKSHOPS**

Each semester the Office of Undergraduate Research will host a number of workshops on topics that may benefit both students and faculty mentors. These include topics such as the Institutional Review Board, bibliographic management software, statistical and data analysis workshops, and poster or paper presentation workshops. Mentors are encouraged to make attendance at these workshops mandatory when appropriate to the research topics. Suggestions for new workshop ideas are welcome.

## **POSTER RESOURCES**

Students may use part of their travel money for poster printing expenses. The OUR has templates for posters that may be very helpful and have information about places to print posters at lower costs. The OUR also has a larger poster carrying tube, which can be borrowed for conference travel. Posters printed at the expense of the OUR may become the property of the OUR after the conference for public display around campus.

## **RESEARCH SUPPORT FUNDS**

Limited funds are available for students enrolled in 499 to support their research. Travel grants are available and are covered in the next section. Students needing money for supplies are encouraged to let the OUR know about anticipated expenses as early as possible. Ideally, anticipated expenses should be noted on the 499 proposal form. If unanticipated expenses arise, the student or faculty mentor can contact the Director of Undergraduate Research to make purchase requests or seek pre-approval for expenses. Every reasonable effort will be made to support the completion of approved projects, but faculty mentors should help students anticipate whether a project is feasible from a resource standpoint. Faculty and students are encouraged to seek outside sources of funding whenever possible.

## **TRAVEL GRANT POLICIES OVERVIEW**

While there is money budgeted to support student conference travel, students must still apply for travel grants. Students should use the TRAVEL GRANT APPLICATION FORM. Travel grant applications should ideally be submitted with all 499C proposals if the intention is to present at a conference. If it is not possible to complete the travel application at the time of enrollment in 499C, students should at least provide an estimate for travel costs if they expect to attend a conference. The QEP implementation committee will attempt to estimate travel expenses based on 499C proposals before the start of the term. Travel grant funds will be reviewed on a rolling basis until funds are exhausted. Students enrolled in 499A and 499B may submit travel grant applications but will be approved only if there are sufficient funds to support their travel after all 499C applications have been reviewed. There is no minimum or maximum amount set for travel grants. The amount approved will be based on available funds and the judicial allocation by the QEP implementation committee. An effort will be made to fund as many student presentations as possible. Faculty mentors should first seek funding for their travel through the professional development funds provided by the Academic Dean's Office. If these funds are exhausted, faculty mentors may apply along with students. The OUR encourages faculty mentors to travel with their students and will make every reasonable effort to support their travel as well.

## **DRIVING AND VEHICLE USE**

Driving is the preferred method for traveling to local and regional conferences unless flying is actually cheaper or time constraints preclude this option. Whenever possible, students and faculty should try to use Milligan vehicles. The secretary of the physical plant should be contacted to schedule and reserve a vehicle as soon as the conference dates and location are set because vehicle reservations fill quickly. The cost of using a Milligan vehicle is 25 cents per mile. This price includes gas cards for use while traveling. Personal vehicles can also be used but no gas cards are provided. Drivers

will be reimbursed 40 cents per mile for use of a personal vehicle. No reimbursement for gas will be provided as this is included in the 40 cent rate. Carpooling to conferences is strongly encouraged.

### **HOTELS AND LODGING**

When overnight accommodations are necessary, an effort should be made to obtain lodging that is safe and reasonable. Students and faculty may choose whether they are comfortable sharing rooms to save money, but only individuals of the same-sex may share accommodations.

### **OTHER TRAVEL OPTIONS**

When driving is not an option, all measures should be taken to obtain the lowest airfare or alternative transportation. Checking multiple airlines or even regional airports for better deals will help save money and ensure that more students can benefit from travel grants.

### **MEALS**

Students and faculty may apply for travel funds to cover meals, but if travel funds run low this will be the first expense to be eliminated. Therefore, students and faculty should have a plan to cover their own meals while traveling if this happens. Meals will be reimbursed at the following per diem amounts: \$5 breakfast, \$10 Lunch, \$15 dinner.

### **PROCEDURES FOR PAYING AND CHECK REQUESTS**

Travel grant applications should be submitted to the OUR as early as possible. Once approved for travel funds, students should discuss with the Director how expenses will be paid along the way. Whenever possible, check requests should be submitted to the OUR in time to pay for expenses like registration fees. When expenses, hotels and airlines require an immediate credit card deposit or payment, the student or faculty sponsor will need to pay the cost up-front and submit a check request for reimbursement. Check request procedures should be followed.

## APPENDIX OF FORMS

Electronic copies of all forms are available on the web for ease of use.

Milligan Office of Undergraduate Research

Travel Grant Form

Instructions: If traveling as part of a group, fill out just one form for everyone in the group unless each individual is traveling and/or staying in separate accommodations. In that case, fill out separate forms. Faculty sponsors should include only travel expenses not already covered by their professional development travel fund.

Student(s) applying: \_\_\_\_\_

Faculty mentor(s) attending: \_\_\_\_\_

Conference Name: \_\_\_\_\_

Conference Location: \_\_\_\_\_ Conference Dates: \_\_\_\_\_

Reason for attending: \_\_\_\_\_ Oral Presentation \_\_\_\_\_ Poster \_\_\_\_\_ Other (explain) \_\_\_\_\_

Has your research been accepted to the conference already? \_\_\_\_\_ Yes \_\_\_\_\_ Not yet \_\_\_\_\_ Not applicable

If not, give anticipated date and likelihood of acceptance: \_\_\_\_\_

Describe here your rationale for attending this conference and what benefits you hope to gain from attending and presenting.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ANTICIPATED EXPENSES

Total student registration fees: \_\_\_\_\_ Total faculty registration fees not covered by professional travel fund: \_\_\_\_\_

Estimated round trip mileage (if driving): \_\_\_\_\_ Number of vehicles: \_\_\_\_\_ Milligan vehicles \_\_\_\_\_ Personal vehicles

Contact secretary to the physical plant first about reserving a Milligan vehicle, as this is the preferred mode of travel.

Total cost of driving: \_\_\_\_\_ (Milligan vehicles cost .25 cents per mile, personal vehicles cost .40 cents per mile)

Total expenses for travel if flying: \_\_\_\_\_ (attach supporting documentation showing final roundtrip ticket cost per person applying)

Estimated cost of parking or other travel-related expenses (e.g., cabs, shuttles, etc.): \_\_\_\_\_

Total Expenses for Hotel/lodging: \_\_\_\_\_ (attach supporting documentation)

Total expenses for meals not included in hotel or conference packages: \_\_\_\_\_ (assume \$5 breakfast, \$10 lunch, \$15 dinner)

List other expenses, such as cost of materials for printing posters: \_\_\_\_\_

List here any other agency or funding source that will be covering part of your travel costs: \_\_\_\_\_

GRAND TOTAL REQUESTED: \_\_\_\_\_

AMOUNT APPROVED: \_\_\_\_\_

\_\_\_\_\_: Director of OUR

## 499 ENROLLMENT FORM

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Check all that apply: \_\_\_\_\_ 499 A    \_\_\_\_\_ 499 B    \_\_\_\_\_ 499C

*Please type your responses using an electronic copy of this form. Contact Joy Drinnon for a copy or visit the Office of Undergraduate website.*

Enrollment Term and Year:

Student Name(s) and Contact Info:

Faculty Mentor(s):

Student Major and Expected Graduation Date:

Desired prefix for this 499 (e.g., BIBL, HUMN, PSYC):

Relevant Prerequisite Courses/Experience:

Anticipated Expenses or Special Equipment Needs:

Planned research activities (499A): *Please attach a list of research activities you and your mentor plan to do this semester.*

Research Proposal (499 B): *Please attach a typed research proposal which follows the attached guidelines.*

Conference Plans (499C only): *Please attach a description of any conferences or journals where you hope to share you research. Please attach a copy of an abstract and bibliography of your research thus far. (Note: The committee may request additional information if this is a new project and you do not already have a 499B proposal on file with the Office of Undergraduate Research.)*

Student's Signature: \_\_\_\_\_

Mentor's Signature: \_\_\_\_\_

Area Chair's Signature: \_\_\_\_\_

Director of UR Signature: \_\_\_\_\_

**(An electronic copy of this form is available on the website for ease of use.)**

## 499 ENROLLMENT FORM

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### 499B Research Proposal Guidelines

The committee recognizes that research looks a little different from one discipline to another. Nevertheless, a research proposal is a valuable tool for any research project and will help ensure that you have a clear sense of direction as you launch into your research in earnest. This proposal will demonstrate that your plans are supported by promising exploratory research, serious preliminary thinking, reading about your topic, and/or conversations with your faculty mentor (presumably done during your 499A or another course). Please complete this proposal in consultation with your mentor.

#### **Section 1: INTRODUCTION AND PURPOSE OF THE STUDY**

- Introduce your research topic and explain why you have chosen it - the source of its interest or importance for you or your mentor. Describe what you anticipate to be the value of your research project--for others, as well as yourself.

#### **Section 2: STATEMENT OF THE PROBLEM**

- State your leading research question and any working hypotheses you may have at this point. The answer to this question will eventually become your thesis or hypothesis. The question will also help you determine which sources fit your topic.

#### **Section 3: APPROACHING THE PROBLEM**

- Describe what form will this project take in the end? (Poster Presentation, Research Presentation or Essay, Creative Presentation, etc.) Describe your plans for conducting the research— this section should include your planned research progression/timeline, anticipated materials, participants, plans for institutional review if applicable and outline any sources/experiments or other necessary research activities you anticipate.
- Describe a possible venue for presenting your research—in this section, you should describe a specific possibility (a conference or some other public presentation) for sharing your work even if you do not plan to continue with 499C.

#### **Section 4: PRELIMINARY REVIEW OF THE LITERATURE**

- Provide here an annotated bibliography of at least 4 sources.

**(An electronic copy of this form is available on the website for ease of use.)**

## OUTSTANDING UNDERGRADUATE RESEARCH PROJECT AWARD APPLICATION

*Students who have completed or are in the process of completing a 499C are eligible to apply for the Outstanding Undergraduate Research Project Award each spring. The winner will be recognized with a certificate and a cash prize at the spring awards convo. The deadline for submission is the end of March to allow time for judging. Complete this form, attach it to your final paper (or closest approximation) and submit to the Office of Undergraduate Research.*

Name:

Mentor:

Semester 499C completed:

Provide a description of each of the following, if applicable:

1. List here any conferences or venues where the project was *or will be* presented or showcased:
  
  
  
  
  
  
  
  
  
  
2. List any awards or recognition you have already received for this project:
  
  
  
  
  
  
  
  
  
  
3. List your plans for publishing this project or exhibiting it further:
  
  
  
  
  
  
  
  
  
  
4. Describe any plans you (or your mentor) have for continuing or expanding the project beyond the 499C.

Please attach or submit as much of the final project as you can to show evidence of high-quality scholarship.

**(An electronic copy of this form is available on the website for ease of use.)**

**499A Grading Rubric**

| <b>CRITERIA</b>                   | <b>Meets All Expectations</b>  | <b>Meets Most Expectations</b>   | <b>Meets Some Expectations</b>  |
|-----------------------------------|--|--|---|
| Point Value                       | 90 – 100%  | 80 – 89.9%   | 0 – 79.9%   |
| Introduction of the concept/topic | The topic introduced and foundation clearly laid. Clear discussion of the objectives to be achieved by the paper.  | Topic introduced and some foundation laid. Some discussion of the objectives to be achieved by the paper.  | Topic introduced but no foundation laid. Limited or no discussion of the objectives to be achieved by the paper.  |
| Literature Review                 | There are no gaps in the literature review. All fields of relevant scholarly work are included.  | There are few, minor gaps in literature review where relevant scholarly work was not included.   | Substantial gaps in literature review exist where relevant scholarly work was not included.   |
| Methodology                       | Author integrated outside research and provided concise and thorough discussion of the methodology to be used.   | Author integrated outside research, provided some discussion of the methodology to be used.  | Little indication the author tried to integrate outside research, provided little or no discussion of the methodology to be used.   |
| Clarity of writing                | Writing is clear and concise. The writer supports ideas with examples. Meaning is clear. Summary of the main points of the paper is fully developed and clear.             | Writing is generally clear, but unnecessary words occasionally used. Meaning is sometimes obscure due to incomplete or long sentences and complex ideas. Summary of the main points of paper is not fully developed. | Writing is unclear and difficult to read and understand what the author is trying to express. Writing is confusing with incomplete sentences. Provides limited or no summary of the main points of paper. |
| Grammar & Paper Format            | 0 errors<br>No spelling, grammar, or punctuation errors. Format of paper and citation of references are correct based on appropriate standards; meets minimum page length. | 1-4 errors<br>Includes few spelling, grammar, or punctuation errors. A few formatting or reference citation errors based on appropriate standards; meets minimum page length.  | 5+ errors<br>Includes misspelled words, incorrect grammar, improper punctuation, incorrect formatting and reference citation based on appropriate standards; meets minimum page length.                   |

**(An electronic copy of this form is available on the website for ease of use.)**

**499B Grading Rubric**

| <b>CRITERIA</b>         | <b>Meets All Expectations</b>  | <b>Meets Most Expectations</b>   | <b>Meets Some Expectations</b>  |
|-------------------------|--|--|---|
| Point Value             | 90 – 100%  | 80 – 89.9%   | 0 – 79.9%   |
| Conduct of Research     | Research conducted in full compliance with approved methodology and accepted norms of the field.   | Research conducted in partial compliance with approved methodology and accepted norms of the field.  | Research conducted with major gaps in compliance with approved methodology and accepted norms of the field.   |
| Composition of Findings | Concepts follow logical order. Transitions in the ideas and paragraphs follow natural or logical order.  | There is a basic flow of information from one paragraph to the next, but not all paragraphs follow natural or logical order.   | Disjointed reference to key concepts or only some of the key concepts referenced. Paper appears to have no direction and subtopics lack flow and/or clarity.  |
| Clarity of writing      | Writing is clear and concise. The writer supports ideas with examples. Meaning is clear. Summary of the main points of the paper is fully developed and clear.             | Writing is generally clear, but unnecessary words occasionally used. Meaning is sometimes obscure due to incomplete or long sentences and complex ideas. Summary of the main points of paper is not fully developed. | Writing is unclear and it is difficult to read and understand what the author is trying to express. Writing is confusing with incomplete sentences. Provides limited or no summary of the main points of paper. |
| Grammar & Paper Format  | 0 errors<br>No spelling, grammar, or punctuation errors. Format of paper and citation of references are correct based on appropriate standards; meets minimum page length. | 1-4 errors<br>Includes few spelling, grammar, or punctuation errors. A few formatting or reference citation errors based on appropriate standards; meets minimum page length.  | 5+ errors<br>Includes misspelled words, incorrect grammar, improper punctuation, incorrect formatting, and reference citation based on appropriate standards; meets minimum page length.                        |

**(An electronic copy of this form is available on the website for ease of use.)**

**499C Grading Rubric**

| <b>CRITERIA</b>                      | <b>Meets All Expectations</b>  | <b>Meets Most Expectations</b>  | <b>Meets Some Expectations</b>  |
|--------------------------------------|--|---|---|
| Point Value                          | 90 – 100%  | 80 – 89.9%  | 0 – 79.9%   |
| Acceptance of Professional Standards | Student aggressively pursues presentation, presenting ideas for venues and overcoming obstacles. | Student pursues presentation, actively following up and overcoming obstacles for proposed venues. | Student reluctantly pursues presentation, making few revisions and little effort to present externally. |
| Presentation                         | Project published or presented in an external venue.   | Project published or presented in an internal venue.  | Project not published or presented.   |

**(An electronic copy of this form is available on the website for ease of use.)**

## Digital Material Submission Form

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**499 MENTORED RESEARCH IN OCCUPATIONAL THERAPY**

PLEASE TYPE YOUR RESPONSES

**Name:**

**Major:** Pre-OT \_\_\_\_\_ yes \_\_\_\_\_ no GPA: \_\_\_\_\_

**Minor:**

**Anticipated Graduation Date:**

**What semester do you want to start a 499?**

**How many semesters are you willing to commit to the project?** \_\_\_\_\_ 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3

**Are you available and willing to commit to the project over the summer?**

**If so, will you be able to provide for your own housing, meals and transportation?**

**What research classes have you had so far besides COMP 211:**

**What skills or experiences do you hope to get out of working with the OT department on a research project?**

**What skills, abilities or aptitudes do you think you could contribute to a graduate research project?**

**Do you already have a project in mind that you have heard about or a faculty mentor or graduate student that you particularly want to work with on a project?**

## 499 SYLLABUS TEMPLATE

Semester: \_\_\_\_\_  
Milligan College

Professor: \_\_\_\_\_  
Office Hours: \_\_\_\_\_  
Contact Information: \_\_\_\_\_

### Course Title and Number

#### **COURSE DESCRIPTION:**

*You should include the following catalog descriptions here, but feel free to include additional details about your specific research project in this section.*

**499A: A faculty-mentored research course in which students craft a research proposal, prepare a literature review, and outline methods by which they plan to conduct research.**

**499B: A faculty mentored research course in which students complete their research in a manner consistent with practices in their discipline and submit a written draft of their findings to their mentor.**

**499C: A faculty-mentored research course in which students revise their research and present their findings publicly.**

#### **TEXTS/READINGS:**

*Specify what the student is expected to read and where they must go to find them. This can include journal articles in your field or background literature for the project. You can include the student in building the bibliography as well. If there is a specific publication manual that you want the student to use when formatting their papers you should list this as well.*

#### **STUDENT LEARNING OUTCOMES:**

*You are encouraged to add learning outcomes that are specific to your plans for the student. However, the ones listed here are the overall learning outcomes of the Rise Above program and should be listed as outcomes the student can expect to work towards. Please at least 2 of the outcomes below along with your other student learning outcomes.*

- **Students will value participating in research activities.**
- **Students will possess the skills to find, evaluate, and document sources relevant to a research question.**
- **Students will demonstrate the ability to craft a research proposal.**
- **Students will demonstrate the ability to complete a mentored research project.**
- **Students will demonstrate the ability to publicly present their scholarly research in a manner consistent with practices in their discipline.**

*Below are sample student learning outcomes that would be appropriate:*

- Students will articulate and refine a scholarly question.
- Students will learn and follow ethical principles.
- Students will be able to assess the validity of key assumptions and evidence.
- Students will be able to situate their scholarly inquiry within a broader context.

## **COURSE REQUIREMENTS:**

*The requirements of the course should be listed. There is at least one minimal requirement for each 499 credit hour. These requirements should be made explicit in the syllabus along with instructions for turning these in to the Office of Undergraduate Research at the end of the term. Additional requirements and behavioral expectations should be listed here as well.*

**499A:** A research proposal is required by the end of the semester during which a student is enrolled in 499A. It should contain the necessary information to fill out the 499B enrollment form. If they do not plan to enroll in 499B, they should still submit a research proposal to the director of undergraduate research as evidence of meeting the minimum requirements of the 499A course.

**499B:** An abstract describing the study and findings is required by the end of the term during which a student completes a 499B. If applicable, this abstract will be attached to the 499C enrollment form and used for applications to conferences.

**499C:** A final paper with bibliography should either be the final product of the 499C or it should accompany a description of the final project (in the case of fine arts projects). Students in 499C are also required to make their project public through a presentation at an appropriate venue.

*Here are suggestions for additional requirements or activities that would be appropriate for 499 projects:*

### **499A** *Keep a project journal*

*Attend workshops offered by the Office of Undergraduate Research*

*Conduct a literature search*

*Summarize articles*

*Create an annotated bibliography*

*Identify and evaluate key methods/theories/model*

*Formulate a research question/hypothesis*

*Develop foundational research skills (e.g., lab work)*

*Attend research meetings/conferences/productions*

*Shadow or assist more advanced researchers*

*Participate in meetings or discussions*

### **499B** *Keep a project journal*

*Attend workshops offered by the Office of Undergraduate Research*

*Collect data*

*Write intensively*

*Create*

*Edit*

*Initiate contacts with participants/agencies*

*Get IRB approval*

*Organize data*

*Establish reliability and validity of methods*

- 499C** *Keep a project journal*  
*Attend workshops offered by the Office of Undergraduate Research*  
*Analyze data*  
*Write conclusions*  
*Finalize paper*  
*Learn publication style*  
*Identify conferences and publication venues*  
*Submit abstracts to conferences*  
*Prepare and practice oral presentations*  
*Learn to make research posters*  
*Prepare and submit articles for publication*

## **EVALUATION/ GRADING POLICY:**

*You should be explicit about your grading policy. The amount of weighting for each requirement or expectation should be listed. Letter grades are assigned to 499 credits, so you should be clear about what is expected to earn each possible letter grade. For example, if you use a number basis (either accumulated points, or percentage basis) you should list the way these numbers translate into grades. Ideally your evaluation/grading policy should link up to and reinforce Student Learning Outcomes.*

*There are 499 rubrics available for your use in assigning grades. This is not required, though you may be asked to fill these out at the end of each term for each student you mentor. They are intended for institutional use to track the Rise Above student learning outcomes.*

## **ATTENDANCE POLICY: (Highly Recommended)**

*499 students should be expected to stay in contact with mentors according to an agreed upon schedule or meeting plan. As the mentor, you may set the behavioral expectations for meetings and any mandatory attendance requirements. Faculty should expect to meet face-to-face at least 3 times for 1 credit hour, 5 times for a 2 credit course, and 7 times for a 3 credit course. As a rule of thumb, students should be expected to devote 2-4 hours per week for each credit hour of 499 they take. While, much of this work will happen in an unsupervised setting, faculty should find ways to hold students accountable through deadlines, concrete assignments, or project journals.*

## **MILLIGAN COLLEGE DISABILITIES POLICY:**

*Please include the following information in your syllabus:*

*“In accordance with the American Disabilities Act, Milligan is happy to provide academic accommodations for students with disabilities. If you have completed the accommodation request process, please contact me (the professor of this course) to discuss the implementation of the accommodations I received from the office of disability services. If you would like accommodations but have never submitted a formal request, refer to your catalog, pages 34-35 for instructions. Contact Heather Jackson at 423.794.3088 , [hjackson@milligan.edu](mailto:hjackson@milligan.edu), or by appointment in the McMahan Student Center for assistance.”*

**COURSE SCHEDULE (Optional):**

*Faculty mentors should expect to devote at least 1 hour per week to mentoring each 499 student credit hour. This time should be spent reviewing the student's research journal or progress reports, answering questions, planning for the next week, and putting their work on the project into a scholarly context. Using a schedule such as the sample below can be helpful.*

|         | Research Activity | Assignments and Readings |
|---------|-------------------|--------------------------|
| Week 1  |                   |                          |
| Week 2  |                   |                          |
| Week 3  |                   |                          |
| Week 4  |                   |                          |
| Week 5  |                   |                          |
| Week 6  |                   |                          |
| Week 7  |                   |                          |
| Week 8  |                   |                          |
| Week 9  |                   |                          |
| Week 10 |                   |                          |
| Week 11 |                   |                          |
| Week 12 |                   |                          |
| Week 13 |                   |                          |
| Week 14 |                   |                          |
| Week 15 |                   |                          |
| Week 16 |                   |                          |