

Mock Grant (BMS 571) Formatting Guidelines for Hood College BMS Students*

Organization of the Mock Grant Document**

The mock grant document is organized in three parts: (1) title page, (2) preliminary pages, and (3) mock grant pages.

Title Page

The first page of your document is the title page. This page is formatted using a Times New Roman font (size 12) with margins of 1.5 inches on the left and 1 inch on remaining sides. A sample title page is available on page 6 of this document.

Preliminary Pages

The document has three preliminary pages with the following section headings, on separate pages:

- Statement of Use and Copyright (see sample, page 7)
- Dedication (optional page)
- Acknowledgements

These pages (sections) have font and margin requirements identical to the title page (see above). The headings for these sections are centered using uppercase, bold, letters. Each page is numbered at the bottom (footer) center using an 11-point Times New Roman font using lower-case Roman numerals. The “Statement of Use and Copyright” page is the first page numbered for the preliminary pages beginning with “ii” (because the title page is counted as page “i” and is not numbered). In addition, paragraphs for these sections are indented 0.5 inches and are double spaced with “full” justification.

Mock Grant Pages

The mock grant page contains the following sections:

- Grant Form Information Pages (four individual pages)
- Specific Aims
- Background and Significance
- Preliminary Results / Progress Report
- Research Design / Methods
- References
- Appendix (optional section)

*Adapted from resources available from the Association of Biology Laboratory Education, Bates College (Department of Biology), National Institutes of Health (Department of Health and Human Resources) and Union College (Department of Biology).

**Consult the BMS 571 “word template” for additional details on organization and formatting requirements. This template is available from the BMS program director and the Graduate School website.

Mock Grant Pages - Subsections with Secondary and Tertiary Headings

For the primary sections: “Background and Significance,” “Preliminary Results / Progress Report,” and “Research Design / Methods,” you have the option to organize each into subsections with appropriate headings as follows:

- Secondary Headings (left-hand margin, bold, first letter of each word is uppercase)
- Tertiary Headings (left-hand margin, italics, first letter of each word is uppercase).

General Information about Paragraphs

- Indent the first line of each paragraph 0.50 inches.
- Paragraphs are double spaced and fully justified.
- Do not add a space between paragraphs.
- Italicize all Latin words (*et al.*), including scientific names (*Escherichia coli*).
- Do not begin sentences with acronyms or abbreviations (“Human immunodeficiency virus is associated with...” not “HIV is associated with...;” “*Escherichia coli* is used to express...,” not “*E. coli* is used to express...”).
- Hyphenate compounds used as adjectives (130-kDa protein, 10-ml pipette, antibody-based treatments).
- Leave two spaces after the “period” that ends sentences and only one space after colons, semicolons, commas, and other internal punctuation marks.
- If quotation marks are used (note: not a common practice), periods and commas should be placed within closing quotation marks.

General Information about Numbers

- Use decimals rather than fractions, except in equations. Decimals not preceded by a whole number should always be preceded by a zero (0.78).
- Use numerals for numbers greater than nine except when starting a sentence (associated abbreviation should be spelled out as well: “Eleven grams was added to the buffer solution...,” but “After the addition of 11 g to the buffer solution...”).
- Spell out numbers one through nine except when used with units of measure or time (“6 mm,” “4 years” but “five students,” “eight observations”), or in a series that includes at least one number greater than nine (“1 syringe,” “3 beakers,” and “35 test tubes.” Use commas in numbers of four digits or more (1,000) except in catalog numbers.

Tables and Figures

You have the option to incorporate tables and figures immediately after the first paragraph they are mentioned. Alternatively, you may place on a separate page. In all cases, center the table or figure within the page. Tables and figures are numbered consecutively (Arabic numerals) and the numbering is independent (start at Table 1 and Figure 1, etc.).

Table legends are single spaced and are centered at the top of the table. Figure legends are single spaced and centered at the bottom of the figure. In the majority of cases, legends are composed of two or three sentences that summarize and explain the contents of the table or figure. Each legend should be composed of:

- A title sentence – summarizes the results presented in the table or figure, and when possible, should include the variables investigated and the organism studied (for example, “The effects of ethanol and caffeine on the heartrate *Daphnia magna*.” Note: it is not acceptable to simply restate the axis labels with a “versus” between the variables.
- Additional sentence(s) – includes further explanatory information, like descriptions of samples used for gel electrophoresis, culture conditions (temperature, media, etc.), sample sizes, and descriptive statistics (where applicable).

The information displayed in tables and figures should not be smaller than a 10-point font nor greater than a 12-point font. See pages 8 and 9, for a sample table and figure, respectively.

References

There are two components for this section, the proper way to cite a reference in the text and the format for the final list of references (your bibliography). You are required to follow the “name-year system” and to employ the Council of Science Editors (CSE) format.

Common examples for citing references in the text:

- If the author’s name is part of the sentence, use the form “Bagni (2002)” and “(Bagni 2002)” if it is not.
- For more than two authors, use the form “Chakiath *et al.* (2009);” however, include all author names in the actual reference listed in your bibliography.
- List multiple citations in alphabetical order; for example, “(Boyd 2002; Pace-Templeton *et al.* 1997; Rossio 2009).”
- If you cite two works by the same author, use the form “(Laufer 1998, 2003).”
- If you cite two works by the same author in the same year, use the form “(Hirschhorn 2001a, 2001b).”

The website <http://library.osu.edu/help/research-strategies/cite-references/cse#Books> provides multiple examples for the CSE formatting of journal articles, books, and internet references. In addition, the following website is a resource to find journal abbreviations: http://images.webofknowledge.com/WOK46/help/WOS/A_abrvjt.html.

Common examples for the list of references:

- Journal Article

Chakiath C, Lyons MJ, Kozak RE, Laufer CS. 2009. Thermal stabilization of *Erwinia chrysanthemi* pectin methylesterase A for application in a sugar beet pulp biorefinery. *Appl Env Microbiol* 75(33):7343-7349.

- Journal Article - Internet

Tripp S, London T, Spend DT. 2005. Greeting the protein. *J Growth* [Internet]. [revised 2006 Dec 1; cited 2007 Feb 20]; 10(9):2022-2030. Available from: <http://www.growth.com/2005109/tripp.htm>.

- Book

Becker WM, Kleinsmith LJ, Hardin J, Bertoni GP. 2009. *The World of the Cell*. 7th ed. San Francisco (CA): Pearson Benjamin Cummings.

- Book - Internet

Rollin, BE. 1998. *Structure and Function of Nucleic Acids* [Internet]. Ames (IA): The Iowa State University Press; [cited 2007 Aug 27]. Available from: <http://www.netlibrary.com>.

- Part of Book

Becker WM, Kleinsmith LJ, Hardin J, Bertoni GP. 2009. *The World of the Cell*. 7th ed. San Francisco (CA): Pearson Benjamin Cummings. Chapter 4, Cells and organelles; p. 75-105.

- Contribution to a Book

Boyd A, Glaser R. 1987. Mapping EBV early antigens in human cells after microinjection of subgenomic DNA clones. In: Levine P, Glaser R, editors. *Epstein-Barr and Human Diseases*. Clifton (NJ): Humana Press. p. 145-149.

Document Printing and Title Page Signatures

Two copies of the mock grant proposal document are required to be submitted by the student to the graduate school by the due date published on the Hood College academic calendar. The minimum paper requirement is a 20-pound bond, 25% rag or cotton-content paper with a “bright white” color and watermark. The first copy is for the Hood College Library, the second copy is for the Department of Biology. Title pages for both of these copies must bear original signatures (in black, ball-point ink) of the adviser, committee members, program director, and dean of the graduate school. Additional copies can be made at the discretion of the student.

Common Symbols and Abbreviations

These symbols and abbreviations are used without spelling the complete term:

Term	Symbol or Abbreviation
alpha	α
amperes	A
base pair	bp
beta	β
centimeter	cm
dalton	Dal
days	d
degrees Celsius	$^{\circ}\text{C}$
degrees of freedom	df
deoxyribonucleic acid	DNA
<i>et alii</i> (and others)	<i>et al.</i>
figure	Fig.
gram	g
greater than	>
hour	h or hr
kilobase	kb
kilobase pair	kbp
kilodalton	kDal
kilogram	kg
less than	<
liter	l or L
maximum	max
meter	m
micromolar	μM
microgram	μg

Term	Symbol or Abbreviation
microliter	μl or μL
milliliter	ml or mL
millimeter	mm
millimolar	mM
minimum	min
minutes	min
molar	M
mole	mol
month	mo
nanogram	ng
nanometer	nm
nanomolar	nM
optical density	OD
parts per thousand	ppt
percent	%
prime	'
ribonucleic acid	RNA
seconds	s or sec
species (plural)	spp.
species (singular)	sp.
standard deviation	SD
standard error	SE
volts	V
volume	vol

Sample for Title Page

**THIS IS THE BOLD, CAPITALIZED, AND DOUBLE-SPACED TITLE OF A
MOCK GRANT TOPIC I HAVE INVESTIGATED**

by

Iam A. Hoodgradstudent

B.A. (Hood College) 2004

MOCK GRANT PROPOSAL

Submitted in partial satisfaction of the requirements

for the degree of

MASTER OF SCIENCE

in

BIOMEDICAL SCIENCE

in the

GRADUATE SCHOOL

of

HOOD COLLEGE

March 2010

Accepted:

Name, Ph.D.
Committee Member

Name, Ph.D.
Director, Biomedical Science Program

Name, Ph.D.
Committee Member

Name, Ph.D.
Project Adviser

Name, Ph.D.
Dean of Graduate School

Sample Page for Copyright Waiver (note: choose one option for your document)

STATEMENT OF USE AND COPYRIGHT WAIVER

I authorize Hood College to lend this mock grant proposal, or reproductions of it, in total or part, at the request of other institutions or individuals for the purpose of scholarly research.

or

I do not authorize Hood College to lend this mock grant proposal, or reproductions of it, in total or part, at the request of other institutions or individuals for the purpose of scholarly research.

Sample Table

Table 1. Summary of gene and primer information used for qPCR to validate the microarray analysis.

Gene	Function	Forward Primer	Reverse Primer
<i>Actb</i>	Regulation of actin cytoskeleton	CTGTGTGGATTGGTGGC TTCT	AGAAAGGGGTGTAAAACGC AGTT
<i>Gapdh</i>	Glycolysis	GGATACTGAGAGACAAG AGGAGACG	GAGGTATTCGAGAGAGA AGGGAGG
<i>Cdt</i>	DNA replication	TTAAGCTTCCCTGTCT GCATCA	TCCAGAGTTACGTCCCCT ATAGC
<i>Slc39a10</i>	Metal ion transporter	CTACACCGGTACCATA GCTGC	ACGTCTTACACGTCCTG CACC

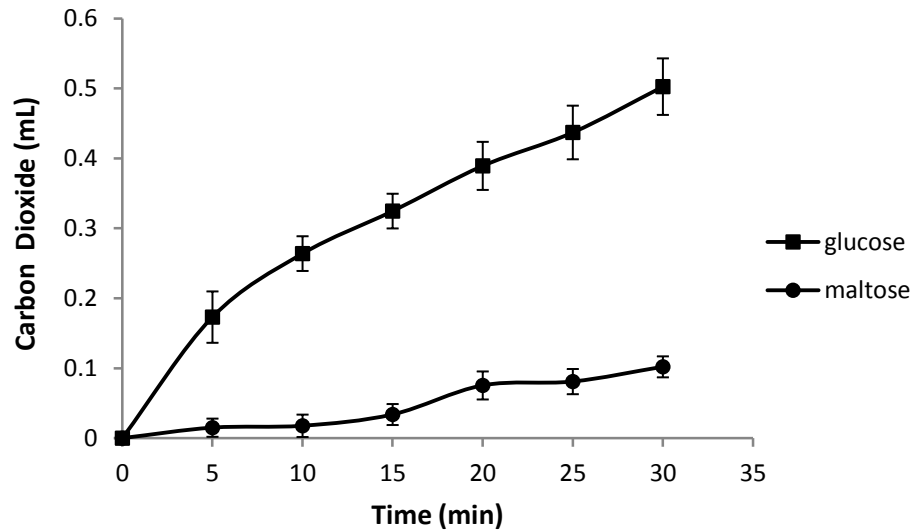
Sample Figure

Figure 1. The effects of glucose and maltose on fermentation by *Saccharomyces cerevisiae*. The volume (mL) of carbon dioxide gas produced by fermentation was measured at 5-minute intervals using a respirometer as described in Materials and Methods. The mean production of carbon dioxide gas (± 1 standard deviation) was based on four samples.