

# PC-2016/17 Course Project Template

## Abstract

The ABSTRACT is to be in fully-justified italicized text, at the top of the left-hand column, below the author and affiliation information. Use the word “Abstract” as the title, in 12-point Times, boldface type, centered relative to the column, initially capitalized. The abstract is to be in 10-point, single-spaced type. Leave two blank lines after the Abstract, then begin the main text.

### Future Distribution Permission

The author(s) of this report give permission for this document to be distributed to Unifi-affiliated students taking future courses.

### 1. Introduction

Please ignore the instructions about Latex editing.

#### 1.1. Language

All manuscripts must be in English.

#### 1.2. The ruler

The LATEX style defines a printed ruler which should be present in the version submitted for review. The ruler is provided in order that reviewers may comment on particular lines in the paper without circumlocution. If you are preparing a document using a non-LATEX document preparation system, please arrange for an equivalent ruler to appear on the final output pages. The presence or absence of the ruler should not change the appearance of any other content on the page. The camera ready copy should not contain a ruler. (LATEX users may uncomment the \cvprfinalcopy command in the document preamble.)

Reviewers: note that the ruler measurements do not align well with lines in the paper—this turns out to be very difficult to do well when the paper contains many figures and equations, and, when done, looks ugly. Just use fractional references (e.g. this line is 189.5), although in most cases one would expect that the approximate location will be adequate.

### 1.3. Mathematics

Please number all of your sections and displayed equations. It is important for readers to be able to refer to any particular equation. Just because you didn’t refer to it in the text doesn’t mean some future reader might not need to refer to it. It is cumbersome to have to use circumlocutions like “the equation second from the top of page 3 column 1”. (Note that the ruler will not be present in the final copy, so is not an alternative to equation numbers). All authors will benefit from reading Mermin’s description of how to write mathematics: <http://www.cvpr.org/doc/mermin.pdf>.

### 1.4. Miscellaneous

When citing a multi-author paper, you may save space by using “*et alia*”, shortened to “*et al.*” (not “*et. al.*” as “*et*” is a complete word.) However, use it only when there are three or more authors. Thus, the following is correct:

“Frobnication has been trendy lately. It was introduced by Alpher [3], and subsequently developed by Alpher and Fotheringham-Smythe [1], and Alpher *et al.* [2].”

This is incorrect: “... subsequently developed by Alpher et al. [1] ...” because reference [1] has just two authors. If you use the \etal macro provided, then you need not worry about double periods when used at the end of a sentence as in Alpher et al.

For this citation style, keep multiple citations in numerical (not chronological) order, so prefer [1, 3, 4] to [3, 1, 4].

### 2. Formatting your paper

All text must be in a two-column format. The total

allowable width of the text area is  $6\frac{7}{8}$  inches (17.5 cm)

wide by  $8\frac{7}{8}$  inches (22.54 cm) high. Columns are to be 31/4 inches (8.25 cm) wide, with a 5/16 inch (0.8 cm) space between them. The main title (on the first page) should begin 1.0 inch (2.54 cm) from the top edge of the page. The second and following pages should begin 1.0 inch (2.54 cm) from the top edge. On all pages, the bottom

margin should be  $1\frac{1}{8}$  inches (2.86 cm) from the bottom edge of the page for 8.5 × 11-inch paper; for A4 paper,

approximately  $1\frac{5}{8}$  inches (4.13 cm) from the bottom edge of the page.

## 2.1. Margins and page numbering

All printed material, including text, illustrations, and

capitalize articles, coordinate conjunctions, or prepositions (unless the title begins with such a word). Leave two blank lines after the title.

AUTHOR NAME(s) and AFFILIATION(s) are to be centered beneath the title and printed in Times 12-point, non-boldface type. This information is to be followed by two blank lines.

The ABSTRACT and MAIN TEXT are to be in a twocolumn format.

MAIN TEXT. Type main text in 10-point Times, singlespaced. Do NOT use double-spacing. All paragraphs should be indented 1 pica (approx. 1/6 inch or 0.422 cm). Make sure your text is fully justified—that is, flush left and flush right. Please do not place any additional blank lines between paragraphs.

Figure and table captions should be 9-point Roman type as in Figures 1 and 2. Short captions should be centred. Callouts should be 9-point Helvetica, non-boldface type. Initially capitalize only the first word of section titles and first-, second-, and third-order headings.

FIRST-ORDER HEADINGS. (For example, 1. Introduction) should be Times 12-point boldface, initially capitalized, flush left, with one blank line before, and one blank line after.

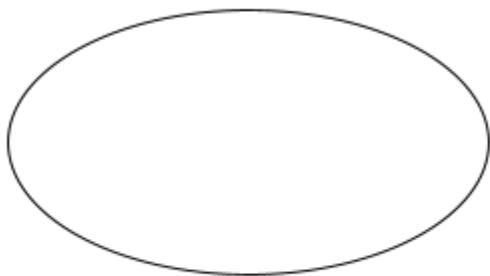


Figure 2: Short captions should be centered.

charts, must be kept within a print area  $6\frac{7}{8}$  inches (17.5 cm) wide by  $8\frac{7}{8}$  inches (22.54 cm) high.

## 2.2. Type-style and fonts

Wherever Times is specified, Times Roman may also be used. If neither is available on your word processor, please use the font closest in appearance to Times to which you have access.

MAIN TITLE. Center the title 1-3/8 inches (3.49 cm) from the top edge of the first page. The title should be in Times 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not

SECOND-ORDER HEADINGS. Should be Times 11-point boldface, initially capitalized, flush left, with one blank line before, and one after. If you require a third-order heading (we discourage it), use 10-point Times, boldface, initially capitalized, flush left, preceded by one blank line, followed by a period and your text on the same line.

## 2.3. Footnotes

Please use footnotes<sup>1</sup> sparingly. Indeed, try to avoid footnotes altogether and include necessary peripheral observations in the text (within parentheses, if you prefer, as in this sentence). If you wish to use a footnote, place it

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<sup>1</sup> This is what a footnote looks like. It often distracts the reader from the main flow of the argument.

at the bottom of the column on the page on which it is referenced. Use Times 8-point type, single-spaced.

#### 2.4. References

List and number all bibliographical references in 9-point Times, single-spaced, at the end of your paper. When referenced in the text, enclose the citation number in square brackets, for example [4]. Where appropriate, include the name(s) of editors of referenced books.

#### 2.5. Illustrations, graphs, and photographs

All graphics should be centered. Please ensure that any point you wish to make is resolvable in a printed copy of the paper. Resize fonts in figures to match the font in the body text, and choose line widths which render effectively in print. Many readers (and reviewers), even of an electronic copy, will choose to print your paper in order to read it.

You cannot insist that they do otherwise, and therefore must not assume that they can zoom in to see tiny details on a graphic. When placing figures in LATEX, it's almost always best to use \includegraphics, and to specify the figure width as a multiple of the line width as in the example below

```
\usepackage[dvips]{graphicx} ...
\includegraphics[width=0.8\linewidth]
{myfile.eps}
```

#### 2.6. Color

Color is valuable, and will be visible to readers of the electronic copy. However ensure that, when printed on a monochrome printer, no important information is lost by the conversion to grayscale.

### References

- [1] A. Alpher, , and J. P. N. Fotheringham-Smythe. Frobnication revisited. *Journal of Foo*, 13(1):234–778, 2003.
- [2] A. Alpher, , J. P. N. Fotheringham-Smythe, and G. Gamow. Can a machine frobnicate? *Journal of Foo*, 14(1):234–778, 2004.
- [3] A. Alpher. Frobnication. *Journal of Foo*, 12(1):234–778, 2002.
- [4] Authors. The frobnicatable foo filter, 2006. ECCV06 submission ID 324. Supplied as additional material eccv06.pdf.
- [5] Authors. Frobnication tutorial, 2006. Supplied as additional material tr.pdf.

### 3. Appendix

If your course project is part of a larger project from another class or research lab, please fill in this section and clearly spell out the following items:

1. Explicitly explain what the computer vision components are in this course project;
2. Explicitly list out all of your own contributions in this project in terms of:
  - (a) ideas
  - (b) formulations of algorithms
  - (c) software and coding
  - (d) designs of experiments
  - (e) analysis of experiments
3. Verify and confirm that you (and your partner currently taking CS231A) are the sole author(s) of the writeup. Please provide papers, theses, or other documents related to this project so that we can compare with your own writeup.