# CPT110 - Introduction to Information Technology

## Assignment 1 (15%) – SP4, 2011

**Due Date:** Monday 19th December, 2011 - 11:59pm

---

*Assignment Learning Objectives:*
- Edit and manipulate digital images in GIMP
- Prepare a step-by-step technical document

*Skills required:*
- Resize and crop an image
- Capture a screenshot
- Insert an image into a word processor document
- Document a process
- Apply creative transformation to an image (ie. *torn effect* or *apply photo frame*)
- Create a PDF document (possibly from your word processor document)
- Using a word processor such as Microsoft Word, Open Office, Libre Office, Bean for Mac or iWork Pages.

---

## Scenario:

You work for the Shire of Tibitville. Recently office staff created a PDF contact sheet of employees. The sheet contained staff photos and email addresses and it was intended to be uploaded to the web. Unfortunately all the staff photos were in the orginal high resolution image format. As a result the PDF was too large to put on the web (ie. it would have been impractical for people to download because of the file size).

Your supervisor has asked you to create a step-by-step guide showing shire office staff how to:

1. **Crop a jpeg image** – 'cropping' means to cut out or trim an unwanted portion of an image. For example, turning a half body photo into a head shot.
2. **Create a thumbnail** – the thumbnail image should be no larger than 150 x 200 pixels
3. **Reduce the file quality of the jpeg image** – tip: this is the second screen that comes up when you save an image.

When you are writing the step-by-step instructions remember who your audience is. Also be sure not to include anything in the instructions that could be detrimental (for example, you wouldn't want them to overwrite the original files with the edited files).

# Suggested Approach:

**Step 1 – Install the GIMP image editor onto your computer:**
GIMP is available free for most platforms (Windows, Mac and Linux) from the following site:
- **GIMP** (http://www.gimp.org/downloads/)

**Step 2 – Choose a jpeg image**
For this assignment you will need to use an image that you own. Do not use a copyrighted photo from the web, so please make sure there are no issues of legality such as copyright. You should either use a self-portrait or a picture of someone you know. The photo which you will use must have someone who is visible clearly from head up to waist. This is so that you can easily work with the image for the following tasks.

**Step 3 – Work out how to perform the three tasks outlined in the scenario, i.e. cropping, creating thumbnail and reducing the image quality**
You may use various methods to work out how to achieve these tasks:
- you could have a play around with the software (trial and error)
- use the software help menu
- ask a friend for advice
- look for information/tutorials online

**NOTE**: there may be multiple ways to complete these tasks using GIMP. You are welcome to choose to use which ever approach will help you achieve the outcome. You may use any other image manipulation software as well; however, your instructions in this step-by-step guide should be for GIMP.

**Step 4 – Write down (in your own words) the steps involved in performing the task**
After you have worked out how to perform the tasks you should write down *in your own words* the process involved. This will be used to create a step-by-step guide. Also take note of *file size changes* that occur to you chosen image as you go through the process as these will be used when you answer the reflective questions.

**NOTE**: It is a plagiarism to copy these instructions from another source. You must use your own words and your own screen capture images.

**Step 5 – Take screenshots of the process (minimum of four screenshots)**
These screenshots should demonstrate the important steps involved in performing the task (the screenshots will be included in your final document). You are ***not*** required to document how you took the screenshots and added them in your document.

**TIP**: On a *Windows and Linux system* you can take a screenshot by pressing the 'Print Screen' button on your keyboard and then pasting the image into software like GIMP or MS Paint. On a *Mac system* you can use a program called 'Grab' to take a screenshot.

**Step 6 – Crop and reduce the file size of the screenshots**
Use the techniques you mastered in step 3 to crop and reduce the file size of the screenshot. This will be helpful in reducing the file size of your document.

**Step 7 – Apply torn effect to one of the screenshots OR photo frame/border to your final headshot created in the previous tasks. (Advanced task – only worth 10%)**

There are different approaches to achieving the torn effect. As a hint, one approach involves: free selection (i.e. lasso), invert selection, cut and apply a drop shadow. Other approaches include creating or downloading an input mask or plug-in.

For applying a photo frame/border, you may use either an effect or the rectangle tool, invert selection tool and paint bucket tool to fill a region as a border. Then you may also apply some artistic look to the border. Like previously, other approach may be to find a plug-in which does this for you.

**NOTE**: This is an advanced task, you may wish to skip this task if you are short on time or if you have found the previous tasks challenging. You are expected to do only one of the advanced tasks. Doing both will not fetch you extra marks, however, if you find them easy then you may choose to do both.

**Step 8 – Create the step-by-step guide and include the screenshot in the document**

In a word processing document (such as Microsoft Word etc.), write up the step-by-step guide for the three tasks mentioned in the scenario. Format the document to make the steps easy to follow. Include the screenshots in appropriate places within the document.

Remember that the aim of the document is that office staff of the Tibitville Shire should be able to replicate the process; you should assume that they have limited skills in using a graphics editor. However, you can also assume that they have some basic skills of using a computer and also have an image editor preinstalled on their computer.

**Step 9 – Include a coversheet in your document (it's recommended you use the coversheet template provided)**

In your coversheet you should include your name, student number, document title, version number, dates and details of major revisions, Tibitville Shire logo (this fictional logo will be provided), purpose of the document and intended audience.

**Step 10 – Answer the reflective questions**

At the end of your document you should include answers to the reflective questions. Your answers should only be a paragraph or two in length.

NOTE: If you use external sources of information remember to reference appropriately (eg. Harvad style, APA etc).

**Step 11 – Convert document to a PDF and ensure that the file size is less than 1.5Mb**

You should submit your report in PDF format. Free PDF converters are available on the Internet. In the recent versions of Microsoft Word, Open Office, Libre Office and iWork Pages, this can be done from within these applications itself, by saving/exporting the document as a PDF

## Reflective questions

Page 18 of your textbook outlines three ways to reduce the file size of an image:
- reduce the sampling rate
- reduce the bit depth
- apply file compression

Thinking about these three concepts, answer the following questions:
1. What was the original file size of your chosen image? Did the file reduce in size after you cropped the image? Is this related to one of the three methods identified above? Explain.
2. Did the file reduce in size after you created the thumbnail? Is this related to one of the three methods identified above? Explain.
3. Did the file reduce in size after you reduced the jpeg file quality? Is this related to one of the three methods identified above? Explain.

NOTE: When you are describing _why_ the file reduction has/has not occurred, please explain it in terms of the transformations occurring to the images pixels, bits or file composition. In other words, do not explain it in terms of the software application.

## What to include your report
Your **PDF** report should have the following:
- Cover page (template will be provided)
- Step-by-step instructions for the three tasks explained in the scenario (including screenshots where appropriate)
- Reflective answers
- Reference section (_only if you used external sources of information_)

## Submission Procedure
- You should submit your assignment via Blackboard using the **Assignments > Assignment 1 – Submission** link (detailed instructions at the end of this document).

- You may resubmit the report if you need to, only the most recent version will be marked.

- Report should be submitted in PDF format. Free PDF converters are available on the Internet.

- The final size of your assignment must not be larger than 1.5Mb. This may mean reducing the resolution of each image and/or compressing image formats prior to including them in the report (e.g. exporting them to jpg).

- You should name your file with your student number followed by '-A1' (e.g. _s334498-A1.pdf_)

# Marking Guide

| Description | Marks |
|---|---|
| Cover page | 10 |
| Instructions for cropping (inc screenshots where appropriate) | 15 |
| Instructions for creating a thumbnail (inc screenshots where appropriate) | 20 |
| Instructions for reducing the file quality (inc screenshots where appropriate) | 15 |
| Torn effect on screenshot OR Photo frame/border on final headshot image | 10 |
| Reflective Answers | 20 |
| Professional Format | 10 |
| **TOTAL MARKS** | **100** |
| PENALTIES (marks are deducted) | |
| - File size exceeds 1.5Mb | -10 |
| - Not naming the file with '-A1' appended to your student number (e.g. *s334498-A1.pdf*) | -5 |
| - Making a submission with multiple files (i.e. not including the images within the report) | -5 |
| - Not submitting in PDF file format | -50 |
| - Late submission | *see Late Penalty section* |

**Plagiarism:**

This assignment must be your own work. Plagiarism is a very serious offence. Students are referred to the RMIT plagiarism policy at http://www.rmit.edu.au/browse;ID=sg4yfqzod48g1

**Extensions:**

Any student wishing an extension must go through the official procedure for applying for extensions. Do not wait till the submission due date to apply for an extension. The facilitator or tutors cannot authorise extensions. Late submissions must first be approved by the Online Programs Administrator by completing the "Assignment Extension Form" at this URL: http://oua.cs.rmit.edu.au/procedures/forms.html or contacting ouacsit@rmit.edu.au.

**Draft Reviews:**

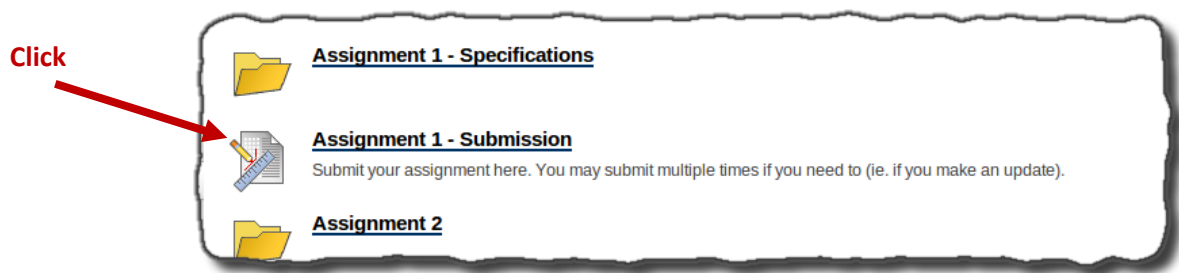The facilitator or tutors will not be able to review assignments prior to submission.

# Late Penalties

Late submissions of assignments will be penalised as follows:

| Time Submitted after Due Date | Late Penalty |
|---|---|
| 0 to 4:59 minutes | no late penalty |
| 5 minutes to 1 hour | 5% off final mark |
| 1 hour to 1 day | 10% off final mark |
| 1 day to 5 days | 10% off final mark for every day late |
| more than 5 days | 100% penalty (you will get 0 marks) |

## SUMBITTING YOUR ASSIGNMENT

**Step 1:** Go to the **Assignments tab** of Blackboard. Click on the link called '**Assignment 1 – Submission'**

**Click**

Assignment 1 - Specifications

Assignment 1 - Submission
Submit your assignment here. You may submit multiple times if you need to (ie. if you make an update).
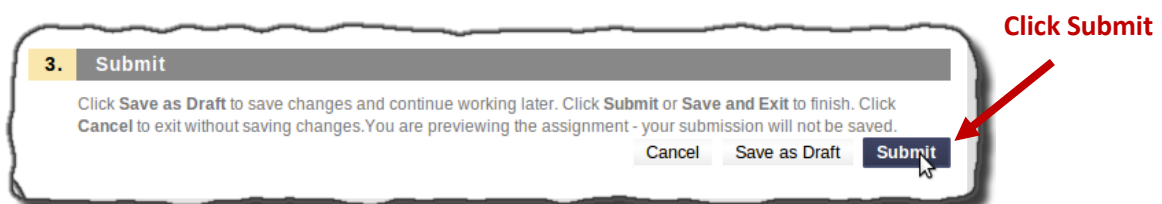
Assignment 2

**Step 2:** Go down to section 2 and select the '**Browse My Computer'** button.

**Choose 'Browse My Computer' and select your assignment file to upload**

Smart Text    Plain Text    HTML

Attach File    Browse My Computer    Browse Course

Comments
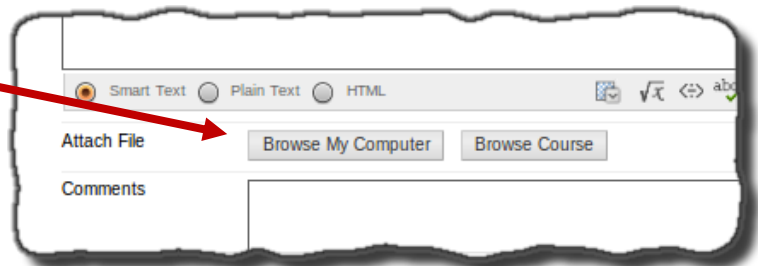
**Step 3:** A file dialogue box will open. Select your assignment file to upload.

**Step 4:** Click on the **Submit** button.

**Click Submit**

3.   **Submit**

Click **Save as Draft** to save changes and continue working later. Click **Submit** or **Save and Exit** to finish. Click **Cancel** to exit without saving changes.You are previewing the assignment - your submission will not be saved.

Cancel    Save as Draft    Submit

**Step 5:** It may take a few moments after you submit the file for the '**Review Submission History**' page to load. You can check the submission was successful by viewing the **Attached Files** (but sometimes it may take a couple of minutes for the file to appear).

NOTE: Don't worry if it takes a few minutes for the file to appear. You may even need to click 'OK' before coming back to the 'Assignment 1 – Submission' link and confirming the file attached.

**2. Review Submission History**

⊟ **Attempt #3 ( 03 September 2011 14:16:09 EST )**

**Submission Materials**
Submission Field :
Student Comments :
Attached Files : s3155924.pdf
**Instructor Feedback**
Grade : Needs Marking
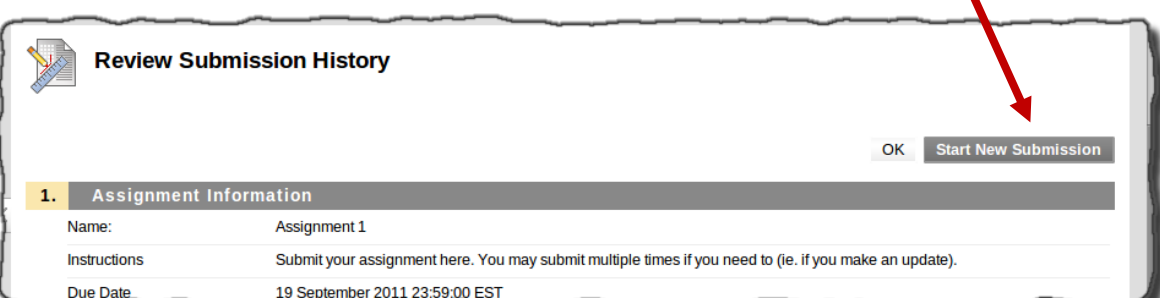Comments :
Attached Files :

⊞ **Attempt #2 ( 03 September 2011 14:11:12 EST )**

⊞ **Attempt #1 ( 03 September 2011 13:52:56 EST )**

## What if you want to re-submit?

If you need to re-submit you can do so by going to **Assignment > Assignment 1 - Submission** and clicking on the '**Start New Submission**' button in the top right hand corner. Go through **steps 2 – 4** of the submission steps.

Re-submit any time before the due date by clicking the 'Start New Submission' button

**Review Submission History**

OK   Start New Submission

**1. Assignment Information**

| Name: | Assignment 1 |
| --- | --- |
| Instructions | Submit your assignment here. You may submit multiple times if you need to (ie. if you make an update). |
| Due Date | 19 September 2011 23:59:00 EST |