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# Scholarship management system

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SCHOLARSHIP MANAGEMENT SYSTEM

A Thesis

Submitted

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REFLECTION

**Introduction**

The following document is my personal reflection looking back at the process to develop the

Scholarship Management System.  I will begin by offering a high-level overview of the system as well as

why I chose the project for my honors thesis.  I will then explain the steps I took to complete the project

as well as the functionality included in the system.  I will close by assessing the value of the system to

the users and provide a statement of my personal gains as a result of this project.


**High-Level Overview of the Scholarship Management System**

The Scholarship Management System is a web-based information system designed to assist with

the scholarship awarding process at the University of Northern Iowa (UNI) College of Business

Administration (CBA).  The system's primary uses include tracking the status of scholarship awards and

viewing data in regard to scholarships and applicants.  The system also includes functionality to add,

edit, and delete any stored data, as well as to generate highly customizable reports.  Although the

primary users of the system are the scholarship coordinator and assistants, the system also allows

scholarship recipients to interactively respond to their awards.  Although the system itself is the primary

deliverable, developing the actual system code was a relatively small portion of the entire project.  To

develop the system I followed the Systems Development Life Cycle (SDLC) methodology which includes

system definition, requirements analysis, system design, and implementation.

**Why I Chose to Develop the Scholarship Management System**

I chose to develop the Scholarship Management System for my thesis project primarily to

improve the scholarship awarding process at the UNI CBA.  Prior to developing the system, I was

employed by the CBA Scholarship Committee for four years which gave me first-hand exposure to the

current process and I recognized an opportunity for a system to be of assistance.  The secondary reason

I chose to this project was because many of the entry-level positions for graduates in my field of study, Management Information Systems (MIS), are either systems analysts or developers and this project exposed me to the tasks that both of these roles would take on a typical project. Lastly, I chose to develop a system, as opposed to a research-based project, because I thoroughly enjoy systems development.

**How I Developed the Scholarship Management System**

As is the case with any information systems development project, the first step along the way to developing the Scholarship Management System was to recognize that there was a need for a system. Although I worked for the CBA Scholarship Committee for four years prior to developing the system, I began to recognize a need for a new system early during my second year. At this time we were beginning to look back on the awards we had issued the year before and it was very difficult to locate the information we desired. The primary reason for this was because the information was stored in many individual files spread across various locations; there was no central location to view the desired information. Throughout the following two years it became ever more apparent that there was a significant need for a system to organize the information relating to the scholarships.

With a system need identified, my next steps were to develop the system definition and complete requirements analysis. These two steps took an extremely large amount of time to complete, roughly six months, primarily due to my inexperience with systems development. I initially developed a feasible plan for the system based on my experiences working for the CBA Scholarship Committee, however, I am not the only person involved in the scholarship process. In addition, I will be graduating in May and, therefore, will never use the live system. For these reasons I decided to consult with the future users to find out what they would like to see in the system. I held several meetings with various individuals including the dean of the CBA, the scholarship director, and members of the CBA Scholarship

Committee to compile a list of their desires for the new system. They were very excited to develop a system, as was I, and the list, therefore, became very large. Once I had the list compiled, I began analyzing the requirements and attempted to find ways to include all of their requirements. I soon realized, however, that several problems were appearing with these new requirements.

First of all, this project carried a fixed deadline that could not be adjusted under any circumstances; it had to be completed before I graduated. There was no way I could have developed all the components they desired in the given timeframe. In addition, many of their requirements could not be developed due to technical issues. For example, one of the user requirements was to have the system automatically generate a list of the applicants that are eligible for each scholarship based on the scholarship criteria and the applicant's application information. On the surface this requirement sounded great, however, upon further analysis it was clear that this would be impossible for a computer to accomplish due the nature of the data involved. Other user requirements could not be included simply because I did not possess the knowledge required for their implementation. Given enough time I could have completed further research, however, as previously mentioned, there was a fixed deadline in place for the project.

In light of this new information, it became clear that I needed to reduce the scope of my project to ensure that I possessed the knowledge and time required to be successful. I held several meetings with my thesis advisors as well as other MIS faculty to assist with narrowing the scope. Instead of actually eliminating requirements from the list, they suggested I instead group them into independently functioning phases. This allowed me to focus on only a small portion of the system as opposed to working on the project as a whole. The plan was then the progress through as many phases as possible before reaching the deadline.

Since I separated the system into several phases, the rest of my project progressed in a series of iterations through the latter half of the SDLC as opposed to the traditional single pass. The first phase

was to design and implement the database that would store all of the data relevant to the system. The database model created using Microsoft Visio 2010 can be viewed in Figure A-1. The database consists of two primary sets of data: applicants and scholarships. Applicants are linked to scholarships by receiving awards and scholarships are categorized into administrative units and authorizing agents. Once the database was designed, I implemented it using Microsoft Access 2010.

With the database created, the first phase of the system was complete. The second phase of the system involved maintaining the database including adding, editing, and deleting data. As with phase one, the first step was design. I developed process models showing how data passes through the system while adding, editing, and deleting data from the database. Process modeling involves developing a tree-like structure of models. An example of the progression through the process model tree from the top-level Functional Decomposition Diagram (FDD) to the bottom-level Process 2.1.2 can be viewed in Figures B-1 – B-4. The FDD, Figure B-1, consists of Process 1: Import Applicant Information, Process 2: Employee Scholarship Maintenance, and Process 3: Applicant Scholarship Maintenance. Process 2, Figure B-2, consists of Process 2.1: Maintain Scholarships, Process 2.2: Maintain Administrative Units, Process 2.3: Maintain Applicants, Process 2.4: Maintain Authorizing Agents, and Process 2.5: Maintain Awards. Process 2.1, Figure B-3, consists of Process 2.1.1: Add a Scholarship, Process 2.1.2: Edit a Scholarship, and Process 2.1.3: Delete a Scholarship. Process 2.1.2, Figure B-4, is the lowest-level model which shows how data moves through the system while editing a scholarship. In total, over thirty process models were created for phase two.

With the process models complete, the final stage of phase two was to implement the models. To implement the models I developed the system in ColdFusion using Adobe Dreamweaver CS4. Developing the system involved coding the necessary aspects of each component and styling them to appeal visually to the user. Once developed, I tested each component to ensure that it performed as expected.

With the completion of testing the phase two components, I began designing the components for phase three. At this point I approached my thesis advisors and suggested I complete the subsequent phases without fully modeling each component. In order to save time and given the fact that I clearly had a very good understanding of the system, we decided to skip the modeling and jump straight to development with the final phases of the project which allowed for more phases to be completed. Therefore, phase three consisted primarily of developing the components to generate reports. After phase three was completed, I developed the final phase which consisted of the components that allow scholarship recipients to interact with the system.

At the completion of phase four I determined that no more phases of development would be completed before the deadline and I then proceeded with the final documents for my thesis project. The first final document I created was the user manual. A copy of the user manual is viewable in Appendix D. I then created a training plan and administered training to the scholarship director and assistant. Lastly, I created the steps required for the system to go live as the system must be transferred from the test server in Institutional Research to a production server in the CBA.

**Detailed Description of the Scholarship Management System**

The Scholarship Management System contains functionality for four primary actions on five sets of data. The primary actions are adding, editing, deleting, and viewing data while the sets of data are scholarships, administrative units, authorizing agents, applicants, and awards. Screenshots of the main page, each of these actions as they relate to scholarships, and other aspects of the system can be viewed in Figures C-1 – C-8. Following is a detailed description of the main page as well as the primary functions of the system.

The main page, Figure C-1, serves as the home page for the scholarship coordinator and assistant as they use the system. Although there are four primary actions on each set of data, only two

links appear beneath each group.  This is because in order to edit or delete data, it must first be viewed.  Therefore, two actions may be immediately taken in each data set, adding and viewing.

Adding data to the system is very simple.  Once a user clicks the Add link an interface similar to Figure C-2 is displayed.  To add data, the user simply enters the desired information and clicks Submit.  Before the data is added to the database the system validates the entries to ensure consistency.  Examples of validation include verifying that all required fields were entered, checking for correct data formats, and ensuring that no duplicates exist.  Upon submission, a confirmation message along with common links is provided.  If validation fails, an error message is displayed explaining why and guiding the user to correct the error.  Additional features of the pages used for adding data include help messages that appear when a user hovers over a field and tips when specific data formats are required.

Viewing data is a two-step process in the system.  The first step is to search for the desired data.  Once a user clicks the View link an interface similar to Figure C-3 is displayed.  To search for data, a user may enter any search criteria or search with no criteria.  A search with no criteria will return the entire data set.  Similar to the pages used for adding data, the search pages also include help messages and tips on data formats where necessary.

Once searched, the matching data is displayed in a format similar to Figure C-4.  Along the top are several options that control the way the data is displayed.  For example, if the Account Number checkbox is checked, the data will include the account number for each scholarship.  If it is not checked, the account number will not be displayed.  In addition to having complete control over how the data is displayed, the user can also change the order in which the data is displayed with the sorting options.  To aid in the use of the reports, every other row of data contains a grey background.

Editing and deleting data in the system may be completed only once the relevant data has been viewed.  To edit or delete, the edit button must be clicked next to the desired row of data. The edit icon appears in the edit column if the Edit checkbox along the top is checked.  An example of this can be

viewed in the far left column of Figure C-4.  Once a user clicks the edit icon an interface similar to Figure

C-5 is displayed.  The information for the selected row of data is prepopulated and can then be edited

and submitted by clicking Edit, or deleted by clicking Delete.  If the data is edited, the same validation

takes place as when data is added.  If the data is deleted, validation occurs to ensure that no other data

in the system is linked to the data being deleted.  As with adding data, whether the action is successful

or not, a detailed message is displayed to the user along with common links.

Adding and editing data is exactly the same for all data sets except awards.  Awards include an

extra verification step to ensure that the information entered is correct.  An example of this verification

step is shown in Figure C-6.  In addition, when an award has been submitted to the system, a summary

of the award appears to assist with creating the associated offer letter.  The award summary contains

the information about the award as well as the contact information for the recipient and scholarship

donor if available.  An example of this summary is shown in Figure C-7.  Included in the award summary

page is the award ID.  This number will be sent along with a link to the page to accept awards and will be

accessed by the recipients of each award.  Recipients will be directed to enter their student ID and

award ID and will then be presented with a page that allows them to respond to their award online.  An

example of this response page is show in Figure C-8.

**Organizational Value of the Scholarship Management System**

The organizational value of the Scholarship Management System for the UNI CBA is vast.  First of

all, the system provides a central location to maintain all data relating to scholarship awards.  This

ensures that everyone involved in the process always views the most update-to-date data and also

provides them access from anywhere at any time.  In addition, the system provides easy-to-use,

customizable reports that can be generated in a matter of seconds.  Any information relating to the

scholarship awarding process can be located much more efficiently with the system.

**Personal Value of the Scholarship Management System**

The Scholarship Management System is not the first information system I have developed for the UNI CBA. It is, however, the first system I fully designed on my own. In previous systems I served primarily as a developer, however this project gave me the opportunity to serve as the analyst as well. In addition, I experienced the difficulty in defining the scope of a project when users have differing desires. Lastly, I was able to refine my development stills, particularly in ColdFusion. This final benefit will be particularly important for me as I will begin my full-time career developing web-based systems immediately upon graduation.

APPENDIX A: DATABASE MODEL
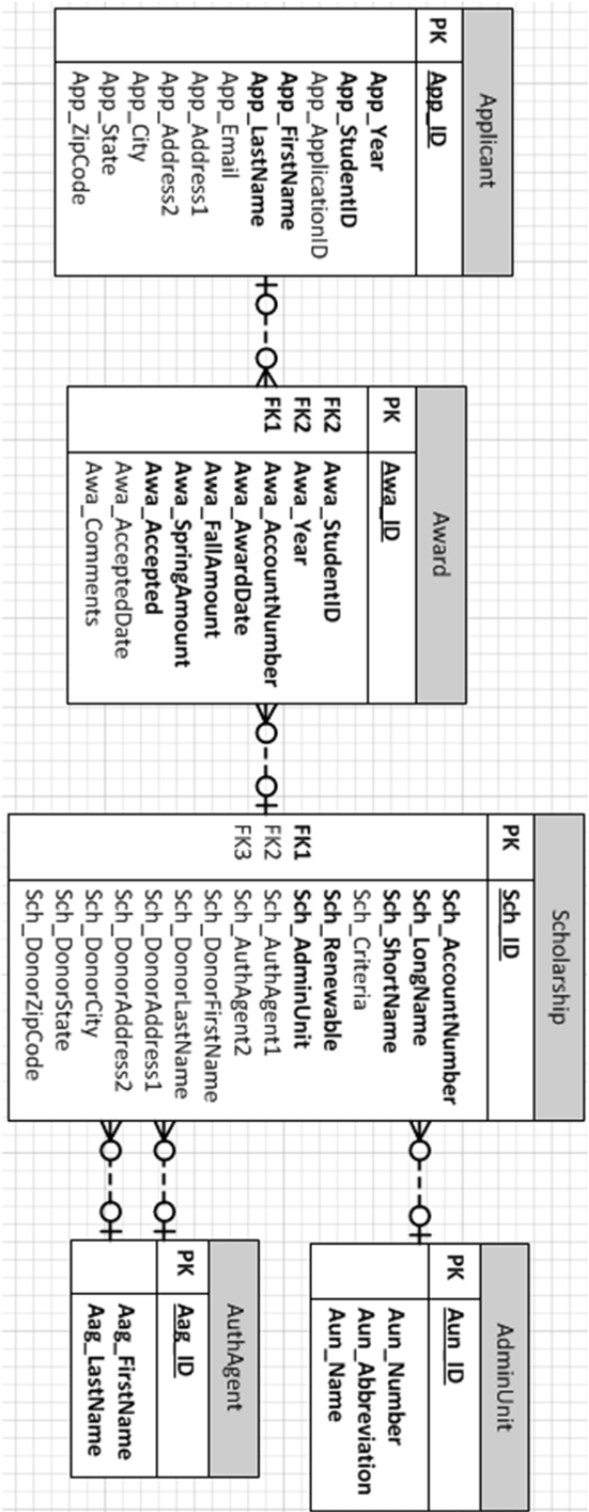


Figure A-1: Database Model

APPENDIX B: PROCESS MODELS
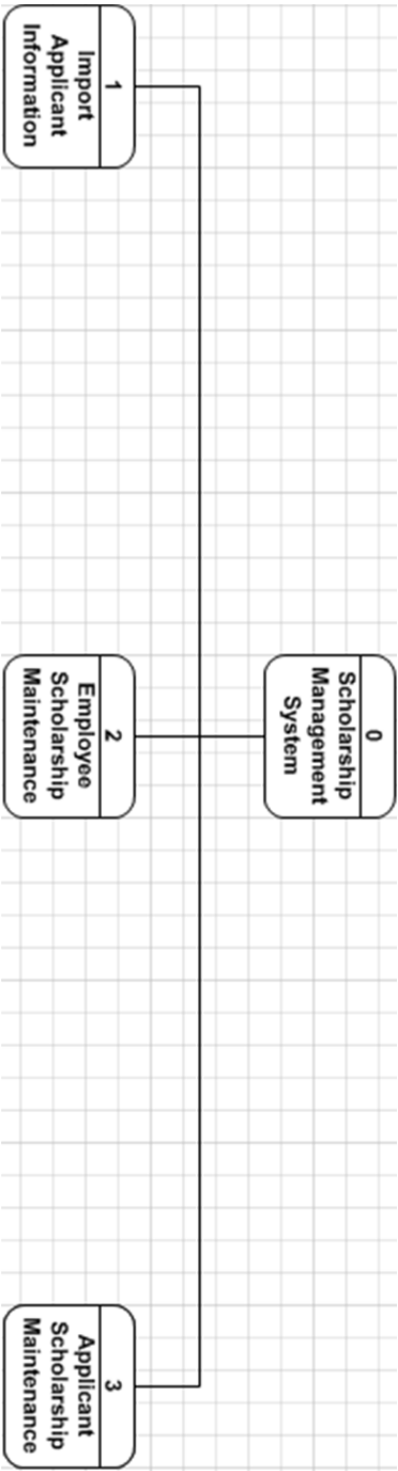


Figure B-2: Process 2

Figure B-1: Functional Decomposition Diagram
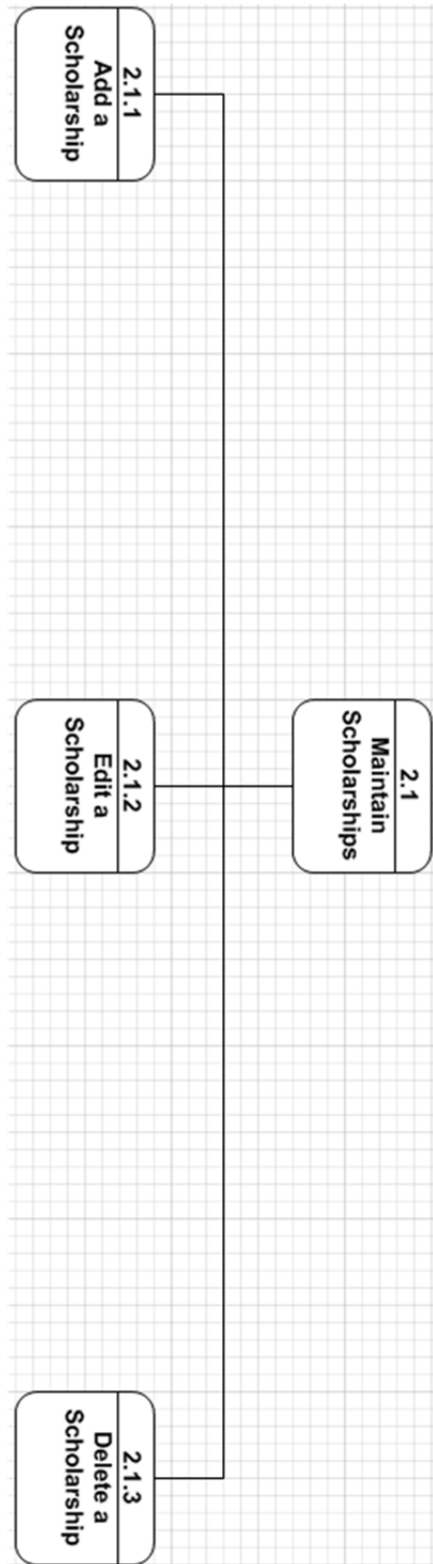
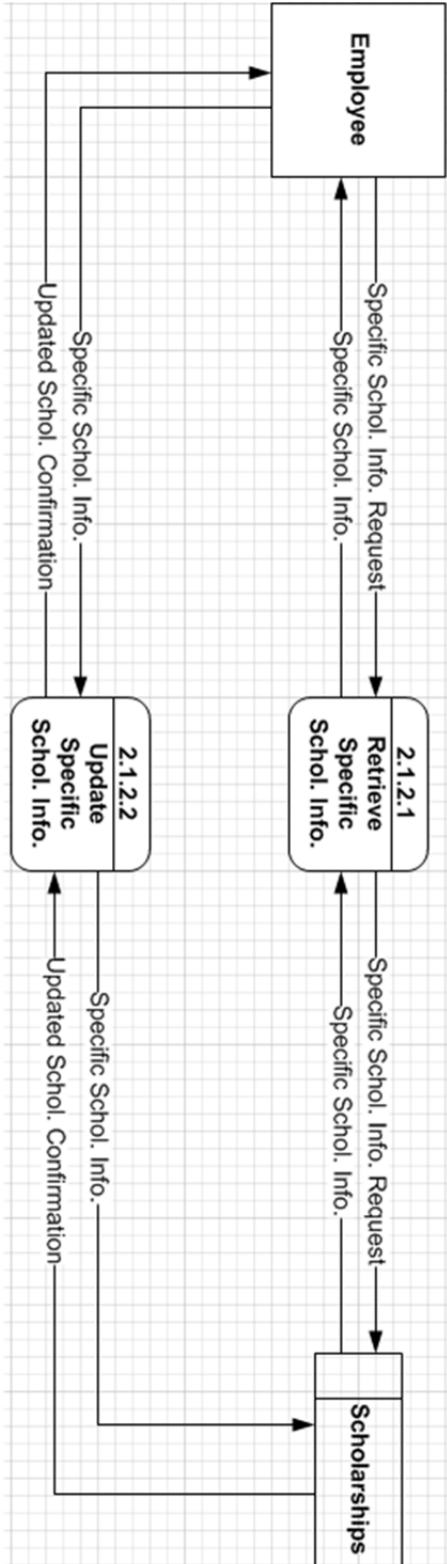Figure B-4: Process 2.1.2



Figure B-3: Process 2.1

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## Scholarships

Add a new scholarship to the system.

View/Edit/Delete a scholarship in the system.

## Administrative Units

Add a new administrative unit to the system.

View/Edit/Delete an administrative unit in the system.

## Authorizing Agents

Add a new authorizing agent to the system.

View/Edit/Delete an authorizing agent in the system.

## Applicants

Add a new applicant to the system.

View/Edit/Delete an applicant in the system.

## Awards

Add a new award to the system.

View/Edit/Delete an award in the system.

Accept an award in the system.

User Manual

Figure C-1: Main Page

**Scholarship Information**

**Account Number**

[                    ]

**Long Name**                                                    **Short Name**

[                                        ]          [                        ]

**Criteria**                                                      **Renewable** ☐

[                                                        ]

\* Enter the criteria in the following format:
\* CriteriaGroup1; CriteriaGroup2: CriteriaValue1; CriteriaGroup3: CriteriaValue1, CriteriaValue2, ...

**Administrative Unit**   **Authorizing Agent 1**        **Authorizing Agent 2**

[        ▼]              [            ▼]              [            ▼]

---

**Donor Information**

**First Name**                    **Last Name**

[                    ]          [                    ]

**Address (Line 1)**

[                                                        ]

**Address (Line 2)**

[                                                        ]

**City**                          **State**   **Zip Code**

[                    ]          [    ]      [        ]

[ Submit ]

Figure C-2: Add a Scholarship Page

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**Scholarship Search Information**

**Long Name**

* Searches for any scholarships containing the entered long name

**Short Name**

* Searches for any scholarships containing the entered short name

**Account Number(s)**

* Searches for scholarships matching entered account number(s): ######; ######; ######; ...

**Renewable   Administrative Unit   Authorizing Agent**

Search

Figure C-3: Search Scholarships Page

**Scholarship**        **Donor**

View: ☑ Edit | ☑ Account Number    ○ No Name    ○ No Administrative Unit | ☑ Name |    [ Update ]

| ☑ Authorizing Agent(s) ○ Long Name ○ Long Administrative Unit | ☑ Address |    [ New Search ]

| ☑ Criteria    ◉ Short Name ◉ Short Administrative Unit | |    [ Print ]

Sort By: [ Number ▾ ] [ ▾ ] [ ▾ ] [ ▾ ]

---

| Edit | Scholarship Information | Donor Information |
|---|---|---|
| 🖉 | 210074 - Charles T. Leavitt Economics<br>212 - Econ \| Fred Abraham<br>  ■ Major: Economics | Gean Durbin<br>1209 W. 4th St.<br>Cedar Falls, IA 50613 |
| 🖉 | 210181 - Day Dugan<br>210 - CBA \| Chris Lukasiewicz<br>  ■ Classification: Graduate Student<br>  ■ Employed | |
| 🖉 | 210207 - Lloyd V. Douglas Memorial<br>214 - Mgmt \| Mary Connerley<br>  ■ Major: Business Teaching<br>  ■ Classification: At least Junior<br>  ■ GPA: 3.00 | |
| 🖉 | 210281 - Katherine S. Humphrey<br>214 - Mgmt \| Chris Lukasiewicz<br>  ■ Major<br>    • MIS      • Business Teaching<br>  ■ Classification: Junior<br>  ■ GPA: 3.00 | |
| 🖉 | 210304 - John S. Latta Jr. Business<br>210 - CBA \| Chris Lukasiewicz<br>  ■ GPA: 3.00<br>  ■ Submit Statement of Career Goals<br>  ■ Leadership/Activities | Joanne Latta Reeves<br>915 Lakeshore Dr.<br>Cedar Falls, IA 50613 |

**Figure C-4: Display Scholarships Page**

## Scholarship Information

**Account Number**

210074

**Long Name**

Charles T. Leavitt Economics Scholarship

**Short Name**

Charles T. Leavitt Economics

**Criteria**                                             **Renewable** ☐

Major: Economics

\* Enter the criteria in the following format:
\* CriteriaGroup1; CriteriaGroup2: CriteriaValue1; CriteriaGroup3: CriteriaValue1, CriteriaValue2, ...

**Administrative Unit**   **Authorizing Agent 1**        **Authorizing Agent 2**

212 - Econ ▾                Abraham, Fred ▾                                        ▾

---

## Donor Information

**First Name**                    **Last Name**

Gean                               Durbin

**Address (Line 1)**

1209 W. 4th St.

**Address (Line 2)**

**City**                          **State**   **Zip Code**

Cedar Falls                        IA          50613

[ Delete ]  [ Edit ]

Figure C-5: Edit/Delete a Scholarship Page

**Verify Award Information**

| Applicant | Scholarship | Total Amount |
|---|---|---|
| 466551 - AMELA ANDELIJA | 210074 - Charles T. Leavitt Economics | $2,000.00 |

If the information above is correct, click submit. Otherwise, click here to go back and make corrections.

Submit

**Figure C-6: Award Verification Page**

Monday, April 4, 2011

**Recipient Information** - 466551
AMELA ANDELIJA
2001 Campus St Apt 617
Cedar Falls, IA 50613
andelija@uni.edu

**Scholarship Information** - 210074
Charles T. Leavitt Economics Scholarship
Gean Durbin
1209 W. 4th St.
Cedar Falls, IA 50613

**Award Information** - 1121
Spring: $1,000.00
  Fall: $1,000.00
 Total: $2,000.00

**Figure C-7: Award Summary Page**

Figure C-8: Award Response Page

APPENDIX D: USER MANUAL

  The scholarship management system consists of two primary categories of data: scholarships and applicants.  The system links these two primary categories together to create the most valuable data in the system, awards.  In addition, scholarships are linked to administrative units and authorizing agents.  All of this data is maintained manually within the system, with the exception of the applicants.  Although applicants may be maintained manually, they will be primarily imported into the system.

  Applicants will be imported into the system twice each year: once early in the fall after the freshman applications are due and once early in the spring after the undergraduate applications are due.  Detailed instructions for completing these imports are provided below (see page 3: Import New Freshman Applicants or Import New Undergraduate Applicants).  In the event that an applicant is not included in the import, the system has functionality to manually add others as necessary.

  The process to manually maintain any category of data in the system is almost exactly the same.  There are two links related to each category on the main page: Add and View/Edit/Delete.  Therefore, there are four primary actions within the system: Adding, Viewing, Editing, and Deleting data.

  **Adding** any type of data is completed by clicking the Add link within any category.  The system is designed to validate all entries, ensuring that all required fields are entered and that no duplicates exist.  In the event that validation fails, an error message is provided explaining the error.  In the case of duplicate data, a link is provided to view the conflicting data in the system.

  Adding scholarships and awards involves linking with other data in the system, therefore the linked data must be present prior to adding the scholarship or award.  In the case of scholarships, they are linked to administrative units and authorizing agents.  Therefore, to add a scholarship to the system, its corresponding administrative unit and authorizing agent(s) must be present prior to adding the scholarship.  In the case of awards, they are linked to scholarships and applicants.  Therefore, to add an award to the system, its corresponding applicant and scholarship must be present prior to adding the award.  These links will also be validated, therefore if a link does not exist, a detailed error message will be provided.  In the case of a missing data, a link is provided is provided to add the data to the system.

  **Viewing**, Editing, and Deleting any type of data is completed by first searching the data.  Searching any type of data is completed by clicking the View/Edit/Delete link within any category of data.  Viewing data is a two-step process in the system: searching and displaying.

  The search page is displayed immediately upon clicking the View/Edit/Delete link.  Each category of data has its own search criteria.  If no search criteria are entered, all data within the category will be displayed.  The search is used to filter the data to view only the desired data.  If multiple search criteria are entered, only data matching all of the criteria will be displayed.  If, however, multiple values are entered for a specific criterion, data matching any of the values will be displayed.  For example, if scholarships are searched based on an administrative unit and an authorizing agent, the only scholarships displayed will be those that are linked to both the selected administrative unit and the selected authorizing agent.  If scholarships are searched based on a list of account numbers, any scholarships matching the entered account numbers will be displayed.  When entering search criteria, note the entry format where applicable to ensure the search is accurate.

  Once the data is searched, the matching data is displayed in the default format.  The format can be altered to show as much or as little information as desired.  The checkboxes and radio buttons in the View section along the top control the information that is displayed about the data.  The data can also be sorted and the system supports nested sorting.  For example, if scholarships are sorted by administrative unit and account number, the data will first be sorted by administrative unit, and then by account number within each administrative unit.  Each time View and/or Sort By options are changed the Update button must be clicked to update the displayed data.

In addition to viewing the displayed data on the screen, the system also supports printing. When printed, the data is automatically formatted to ensure that a single instance of data is not split across multiple pages. For this to work, however, the browser must be setup correctly and the amount of data shown must not fall onto multiple lines. Detailed instructions for setting up printing in the browser are provided below (see page 10: Setup Browser Printing – Internet Explorer or page 11: Setup Browser Printing - Firefox). If new search criteria are desired, click the New Search button to begin a new search.

**Editing** and **Deleting** data in the system can only be completed after Viewing the relevant data. One of the options when displaying data is Edit. When Edit is checked, a column appears to the left of the data that contains a pencil icon. This icon is linked to the Edit/Delete page for the information displayed. To Edit or Delete the data, click the pencil icon. If editing, alter the data as desired, and then click Edit. If deleting, simply click Delete. The action will be validated and any errors will be displayed. When editing, the data is validated to ensure that all the required fields are entered and that no duplicates exist. If duplicates are found, a link is provided to view the duplicate data in the system. When deleting, the data is validated to ensure that there are not any links to the information that is being deleted. If data links exist, a link is provided to view the linked data in the system. Linked data must be deleted before the deletion can be completed. For example, a scholarship cannot be deleted if it has awards linked to it. These awards must be deleted before the scholarship can be deleted.

The process for all actions on all types of data is exactly the same, except for awards. When adding and editing awards, there is an extra step to verify that the entered information is correct. In addition, when the data is submitted, a summary is provided to aid in creating an offer letter. The system has the capability to allow recipients to reply to their offers online. This can be done via the **Accept** link in the awards section. To access their award, all they need to know is the link to the Accept page, their student ID and their award ID. This award ID is displayed in the summary when an award is added or edited.

**Import New Freshman Applicants**

1. Retrieve raw applicant data from Financial Aid (see page 4: Retrieve Applicant Data).
2. Filter out undesired applicants if necessary (see page 5: Filter Applicant Data).
3. Format filtered data for import into the system (see page 6: Format Data for Import).
4. Import formatted data into the system (see page 7: Import Data).

**Import New Undergraduate Applicants**

1. Retrieve raw applicant data from Financial Aid (see page 4: Retrieve Applicant Data).
2. Filter out undesired applicants if necessary (see page 5: Filter Applicant Data).
3. Format filtered data to be sent to Institutional Research (see page 8: Format Data for IR).
4. Send the formatted data to Institutional Research (see page 9: Send Data to IR).
5. Import data from Institutional Research into the System (see page 7: Import Data).

**Retrieve Applicant Data**

All scholarship applications are submitted online through the UNIversity Scholarship Application. The application data is accessible through MyUNIverse. Following are the steps required to retrieve new applicant data.

1. Navigate to MyUNIverse (http://myuniverse.uni.edu/) in a web browser and login.
2. Click the Work @ UNI tab along the top.
3. Click on BUS - General Scholarship Reports (FW59) in My Administrative Access.
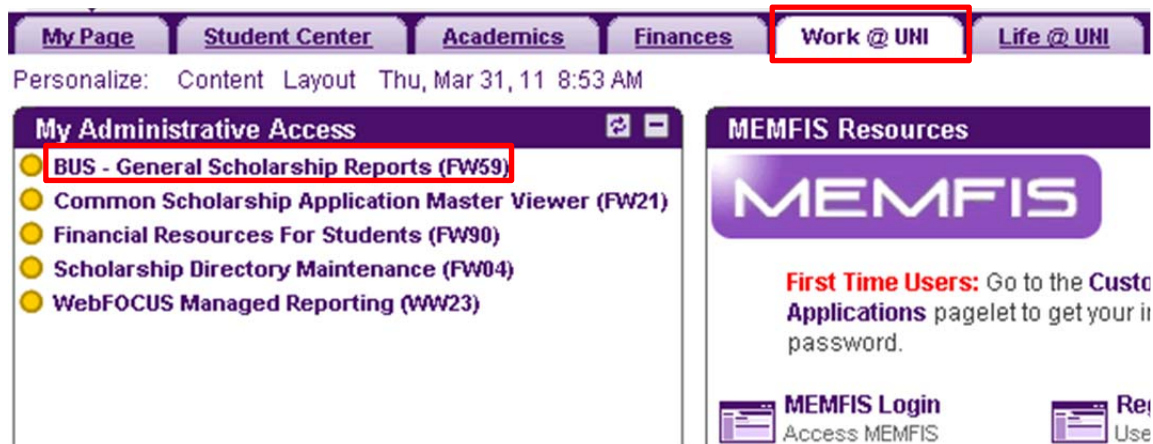


4. Select the appropriate award year.
5. Click the Run Report button.



6. Save the file to an accessible location. For example, the desktop.

**Filter Applicant Data**

The raw applicant data generally contains a significant amount of undesired data. Following are the steps required to filter out this undesired data.

1. Open the Excel file containing the data you wish to filter.
2. Click on Filter from the Sort & Filter menu of the Editing section on the Home tab (ctl + shift + L).
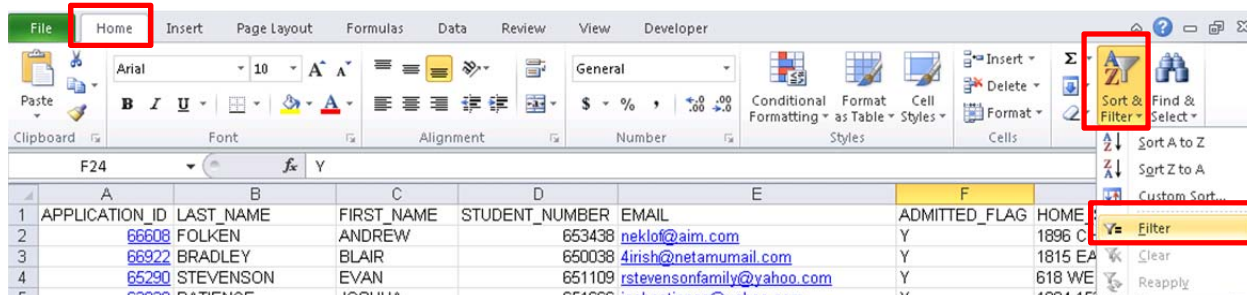


3. Click the filtering arrow on the field you wish to filter.
4. Check the boxes for the values you wish to view.

   a. NOTE: If filtering is desired on multiple fields, the filter matches in all filtered fields. This is problematic, for example, when filtering by major because there is more than one field for major. If all business majors are selected in the Major1 and Major2, only applicants with a business major in both fields will be displayed. To properly sort by major, all of the desired values must be in a single field.
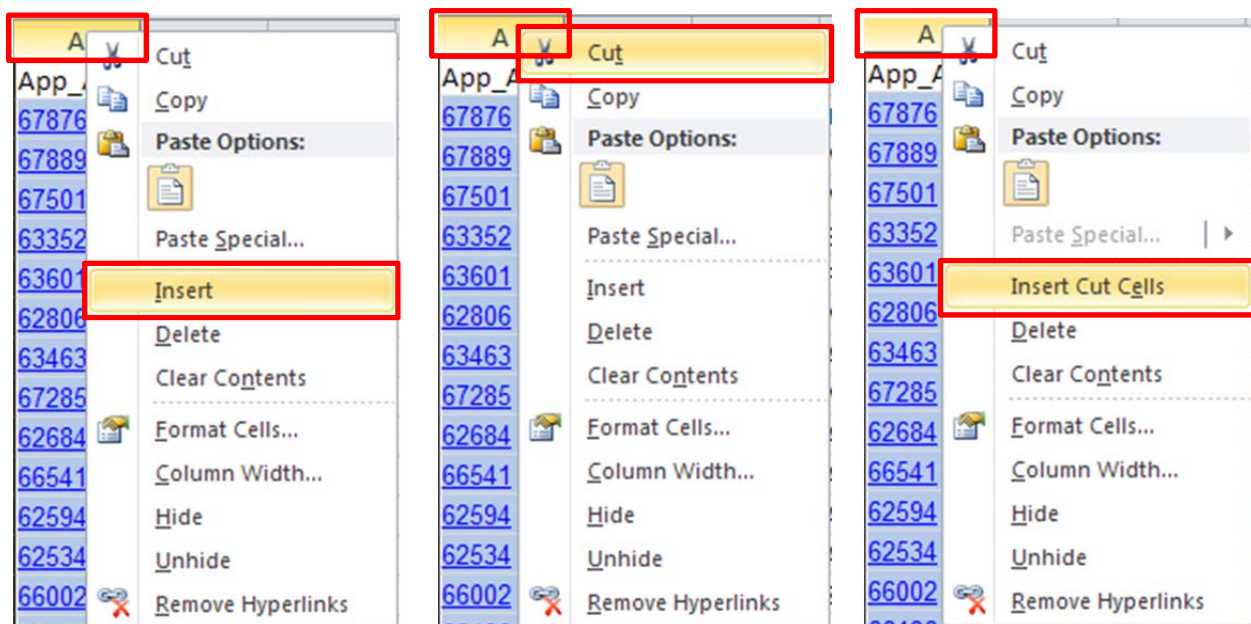
5. Click OK.
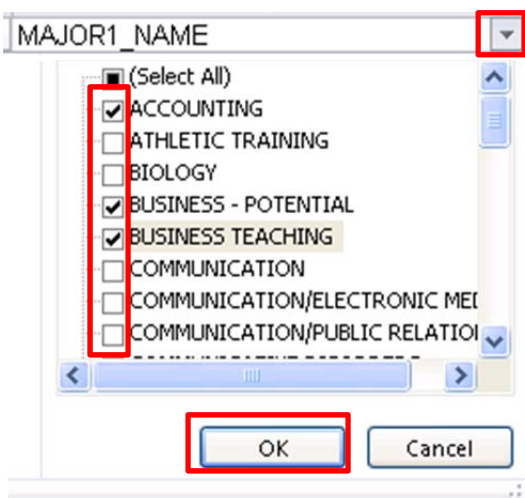


6. Select all the data (ctl + A).
7. Copy the data (ctl + C).
8. Open a new Excel spreadsheet (ctl + N).
9. Past the data (ctl + V).
10. Save the Excel spreadsheet (ctl + S).

**Format Data for Import**

In order to import that applicant data into the system, the format must perfectly match the fields in the system database. Following are the steps required to format the data to match the database.

1. Open the Excel file containing the data you wish to import.
2. Insert a new first column called App_Year and set all values to the appropriate application year. For example, applicants applying for scholarships that will be applied to their bill during the 2011-2012 academic year are applying during the 2010 application year.

    a. NOTE: To insert a new column, right click a column header and click Insert.
    b. NOTE: To move a column, right click the column header and click Cut. Then right click another column header and click Insert Cut Cells.



3. Rename the following columns and place them in the following order.

| CURRENT NAME | DATABASE NAME |
|---|---|
| Student_Number | App_StudentID |
| Application_ID | App_ApplicationID |
| First_Name | App_FirstName |
| Last_Name | App_LastName |
| Email | App_Email |
| Home_Street1 | App_Address1 |
| Home_City | App_City |
| Home_State | App_State |
| Home_Zip_Code5 | App_ZipCode |

4. Delete all extra columns.
5. Save the Excel spreadsheet.

**Import Data**

Importing the new applicants into the system database is one of the most important actions completed each semester. Following are the steps required to import that data into the database.

1. Create a backup copy of the database file by copying and pasting it into the same folder.
2. Open the database file in Access.
3. Click on Excel in the Import & Link section of the External Data tab.
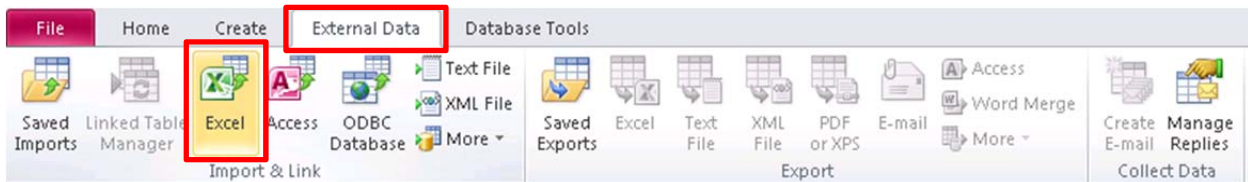


4. Browse for the appropriate Excel spreadsheet to import.
5. Click on Append a copy of the records to the table:.
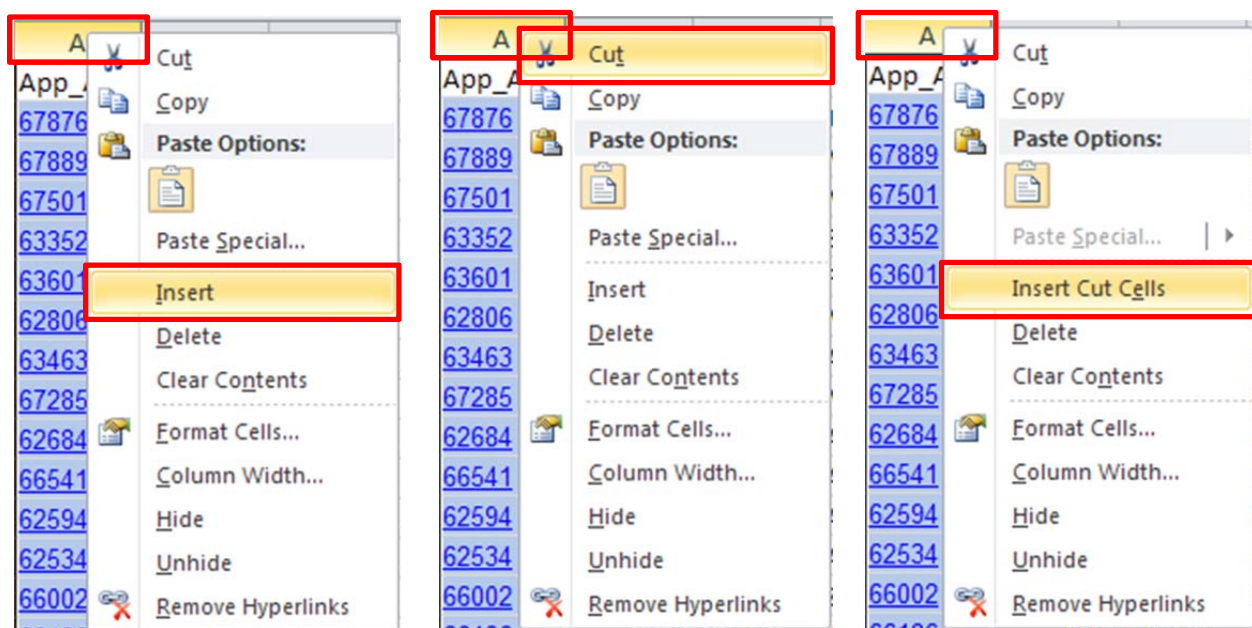6. Select Applicant from the list.
7. Click OK.
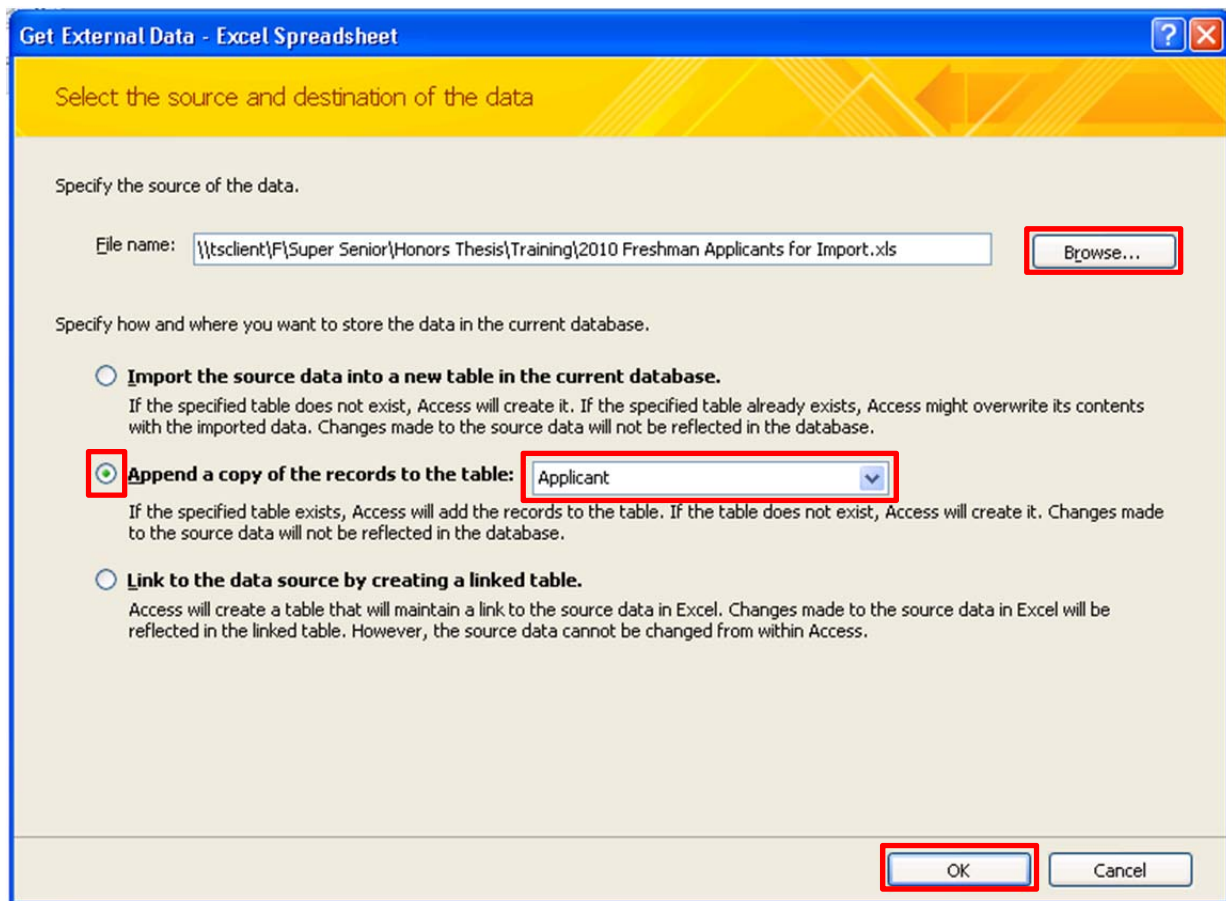


8. Click Finish. If an unable to append error occurs, click Yes.

**Format Data for IR**

Since the raw undergraduate data from Financial Aid does not contain the applicant contact information, the data most be sent to Institutional Research to have this data appended. Before sending, however, it must be formatted. Following are the steps required to format the data.

1. Open the Excel file containing the appropriate data.
2. Insert a new first column called App_Year and set all values to the appropriate application year. For example, applicants applying for scholarships that will be applied to their bill during the 2011-2012 academic year are applying during the 2010 application year.

   a. NOTE: To insert a new column, right click a column header and click Insert.
   b. NOTE: To move a column, right click the column header and click Cut. Then right click another column header and click Insert Cut Cells.



3. Rename the following columns and place them in the following order.

| CURRENT NAME | DATABASE NAME |
|---|---|
| Student_Number | App_StudentID |
| Application_ID | App_ApplicationID |
| First_Name | App_FirstName |
| Last_Name | App_LastName |

4. Delete all extra columns.
5. Add the following columns by typing their names in the first row and leaving the data empty.

| App_Email | App_Address1 | App_Address2 | App_City | App_State | App_ZipCode |
|---|---|---|---|---|---|

6. Save the Excel spreadsheet.

**Sending Data to IR**

Since the raw undergraduate data from Financial Aid does not contain the applicant contact information, the data most be sent to Institutional Research to have this data appended.  Following are the steps required to send the data to Institutional Research.

1. Compose an email message to Dr. Kaparthi (shashi.kaparthi@uni.edu) and Scott Busche (scott.busche@uni.edu).
2. Attach the appropriate Excel spreadsheet.
3. Explain the purpose of the message and request the following items.
    a. Fill in the blank fields with the appropriate data, with priority given to local data.
    b. The five digit zip code, not the nine digit version.
    c. Leave empty fields blank, do not insert characters like a "-".
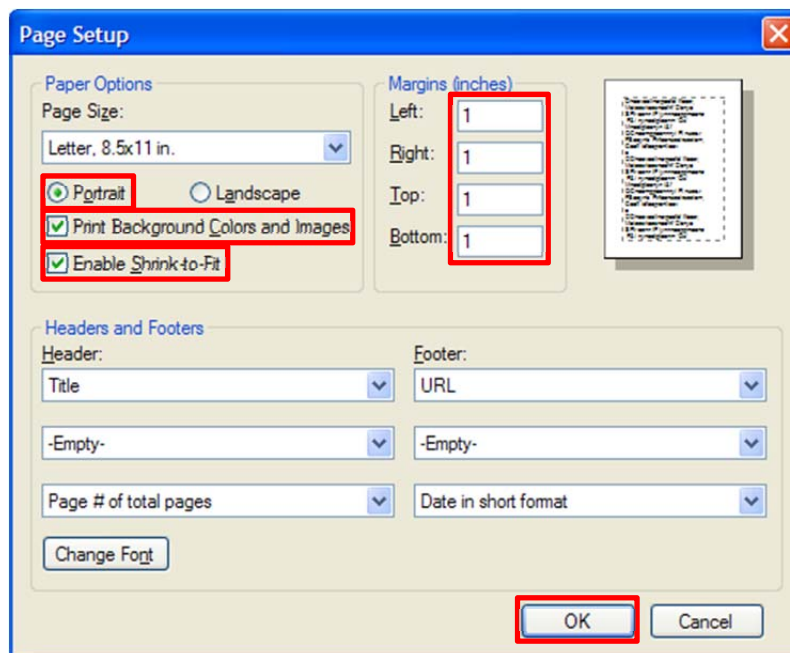    d. Do not append any other fields.
4. Send the message.

## Setup Browser Printing – Internet Explorer

Formatting information to be printed directly from a web browser is nearly impossible without requiring the user to set specific settings.  Following are the steps required to set up Internet Explorer to print correctly.

1.  Open the File menu.
2.  Click Page Setup…
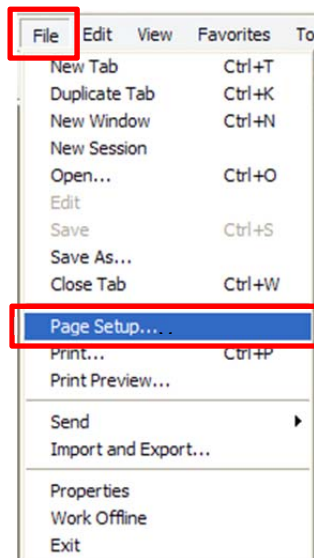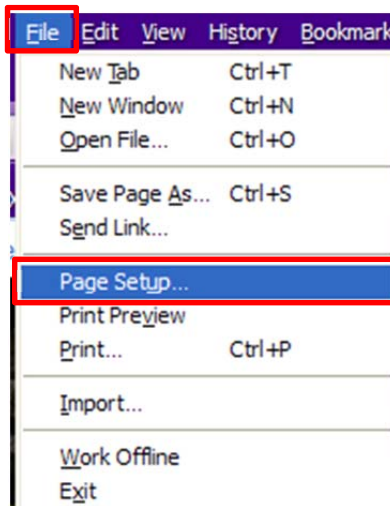


3.  Set the orientation to Portrait, check Print Background Colors and Images and Enable Shrink-to-Fit, and set all Margins to 1 inch.
4.  Click OK.

**Setup Browser Printing – Firefox**

Formatting information to be printed directly from a web browser is nearly impossible without requiring the user to set specific settings. Following are the steps required to set up Firefox to print correctly.

1. Open the File menu.
2. Click Page Setup…



3. In the Format & Options tab, set the Orientation to Portrait and check Shrink to fit Page Width and Print Background (colors & images).
4. In the Margins & Header/Footer tab, set all Margins to 1 inch.
5. Click OK.