

**Guidelines for Undergraduate MIS internships at  
Metropolitan State University College of Management**

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**Overview of document**

This document describes standards procedures and requirements for MIS internships in the MSU College of Management.

MIS internships provide MIS undergraduate students in the College of Management working experience and elective credits for the MIS major. After completing a screening process, students register for the elective course entitled MIS 350I: MIS Internship.

MIS internships are supervised and evaluated by an *internship site supervisor* and a faculty member who serves as an *internship evaluator*.

This document is intended as a supplement for the Individual internship guidelines for the College of Management, as well as all procedures and documentation provided by the university's internship office. Before reading this document, student should already have read those COM guidelines online: [www.metrostate.edu/ccbl](http://www.metrostate.edu/ccbl) Click on Academic Internships, then guidelines.

**Finding an internship opportunity**

There are several ways students can find an MIS internship:

- ❑ A student could contact the MSU internship office for information on available internships OR could find out about organizations that are offering internships and apply for these opportunities
- ❑ A student could find P/T or F/T employment (like a summer internship) on their own and propose that it be granted internship status.
- ❑ A student and employer could identify, within the organization for whom the student currently works, a significant extra project (160 hours or more in duration over 10-15 weeks) that appears to match the qualifications of an MIS-related practical learning experience. However, this project would have to NOT BE PART of the student's usual work responsibilities. Moreover, if the organization is run by anyone related to the student, this is also not feasible for an academic internship.
- ❑ Occasionally, MIS faculty members are contacted by external organizations seeking to recruit interns and try to notify the MIS students so they can apply for the positions.

**What kind of jobs or projects can be suitable for internships?**

It is important to realize that not all computer-related jobs constitute an MIS internship. Many P/T jobs offered by companies to students simply involve repetitive technical work assignments with computer hardware, routine software maintenance, or data entry tasks. Since there is no MIS learning experience associated with these jobs, these cannot serve as internship opportunities.

Learning experiences that could serve as an MIS internship include:

- ❑ the management of information technology
- ❑ the elicitation of business or system requirements for an organization and their documentation
- ❑ the redesign and/or documentation of business processes
- ❑ the creation and deployment of an administrative framework for MIS services (like Helpdesk)
- ❑ the creation of new transactional software/web site and their appropriate documentation.

The key issue for prospective interns to understand is that there are some internships or P/T work opportunities in MIS that may be worthwhile to pursue but that may not qualify for the academic

certification necessary for awarding college credit. Many MIS students may find these worthwhile simply to gain some working experience.

Moreover, there may be information technology jobs whose tasks are so routine and structured that they cannot be certified for academic credit since they contain no element of either analysis tasks or design tasks. This is not surprising since one of the motivations for organizations to hire interns is find a low cost way to get routine tasks done.

Obviously many jobs will contain a blend of tasks that are both routine and non-routine. Moreover, the experience of the MIS faculty is that most organizations providing internships are very willing to modify internship requirements to incorporate task assignments that meet the requirements for academic internships – to incorporate some element of analysis or design tasks to them. Moreover, since most organizations typically have information systems or business processes that are under-documented, there is usually room for most organizations seeking an intern to modify the scope of the internship responsibilities to include some process or user documentation tasks for the intern.

Another question that students often ask is whether MIS internships are paid or unpaid. The answer is that some are unpaid and some are paid. Whether they are paid internships or not typically depends on the kind of organization that is offering the internship (business or non-profit) and the aggregate demand for persons with MIS skills in the local economy. Regardless of whether internships are paid or unpaid, all internships incur some cost to the employer since they require active supervision of the intern (which costs time and money).

The following table provides a few examples of different information technology jobs and the kinds of tasks that would have to be performed in order for these jobs to serve as MIS internship opportunities.

| <b><u>Job</u></b>                    | <b>Description of MIS job responsibilities that qualify as an internship opportunity</b>   |
|--------------------------------------|--|
| <i>Project manager/administrator</i> | Significant project management responsibilities that involve the extended use of project management software, creation of supporting project documentation   |
| <i>Business Systems Analysis</i>     | Composition of user documentation for new or redesigned business processes; Eliciting, defining and documenting user requirements for new IT applications.   |
| <i>Programmer</i>                    | Significant development of new software modules with concurrent writing of technical documentation of software for MIS staff AND composition of documentation of software use for end-users.   |
| <i>Web developer/designer</i>        | Significant development of web site with concurrent writing of technical documentation of site architecture for internal web maintenance staff AND some documentation of software use for end-users. Moreover, the new website should also have some transactional component to it, as well as some linkage to a database. |
| <i>Helpdesk Support</i>              | Supporting MIS staff in providing routine & non-routine assistance to end users AND configuration of hardware/software for sets of end users according to standard guideline set forth by MIS managers AND creation of helpdesk documentation for end users.   |
| <i>Information systems developer</i> | Even as an end-user, participating with a cross-functional team charged with developing a new management information systems project AND playing a key role in project communications and  |

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|                   | documentation.  |
| <i>Researcher</i> | Research new area for IT application for organization; Write up a technology assessment report. |

This table is not meant to be a comprehensive list of all jobs that are suitable for MIS internships, but is rather meant to communicate the type of job responsibilities that are appropriate for an MIS internship that is awarded college credit.

### **Who determines whether a job or project is suitable for an internship?**

Under all circumstances an MIS faculty member (serving in the role of internship evaluator) must review the prospective internship opportunity. This typically takes place just about the same time as the organization is about to offer the position to student who has applied for it. The internship evaluator will determine if it can be approved as an internship project for credit. Quite often, after being briefed by the student or by the internship office, a faculty member will contact the prospective employer in order to ask more in-depth questions about the tasks to be performed in the internship position. For most undergraduate internships, the internship evaluator will be David Bahn.

What are the prerequisite requirements for an MIS internship?

1. Before registering for the MIS 350I Internship elective course, all students must have completed the following courses:

- ❑ MIS 310: Principles of Management Information Systems
- ❑ MIS 320: Information Systems Analysis & Design

Because several of the MIS learning opportunities entail a thorough knowledge of the process components of information systems development (i.e. the SDLC and alternative approaches to systems development) students should pursue an internship opportunity only after they have taken MIS 320; Information Systems Analysis & Design. In general, the more MIS major courses the student has taken prior to the internship, the more valuable (and credible) will be the internship learning experience.

2. A student must have an approved Academic Internship Agreement, signed by the internship site supervisor and the internship evaluator.

### **How are internships supervised and evaluated?**

There are two individuals (the internship evaluator and the internship supervisor) who must evaluate the internship experience and certify it to receive University credit.

The *internship site supervisor* is usually the on-site work supervisor of the student intern. He or she does the following activities:

- ❑ provides day-to-day task/activity supervision and certifies that the intern has carried out the tasks and activities set forth on the initial Academic Internship Agreement
- ❑ at the outset of the internship, jointly decides with the internship evaluator what kind of user documentation the intern will produce
- ❑ assesses whether the internship paper is accurate
- ❑ provides an overall recommended pass/fail grade for internship (that must be approved by the internship evaluator) and completes an evaluation of the intern and internship, and initializes this evaluation on the learning evaluation form. However, the site supervisor does NOT sign the internship evaluation form – the faculty member who is the internship evaluator does that (see below).

The *internship evaluator* is usually an MIS faculty member charged with establishing and certifying the academic learning component of the internship. The internship evaluator does the following activities:

- at the outset of the internship, the evaluator certifies that the internship opportunity meets the qualifications for being an appropriate MIS learning experience
- at the outset of the internship, the evaluator certifies that the 10 article references provided by the student in the Academic Internship Agreement are valid and appropriately relevant to the proposed internship tasks/activities.
- At the conclusion of the internship, the evaluator:
  - a. reviews the learning evaluation form as prospectively completed by the site supervisor
  - b. validates that the internship paper has met internship requirements and has also addressed what the intern learned about the MIS discipline
  - c. signs off on the learning evaluation form and assigns a grade of pass or fail (typically pass, though sometimes the internship evaluator may ask the intern for additional work on the paper before assigning a grade)

### **What are the preliminary deliverables of the internship?**

Before a student can register for the internship, there are two preliminary deliverables that must be submitted and approved. Both of these are part of the Academic Internship Agreement.

#### *The task list:*

The student must submit a list of tasks and project goals that will be performed in the internship position. In many instances, this will be defined by the prospective internship supervisor.

#### *The list of 10 or more references:*

The student must provide a list of 10 or more article/paper references that topically pertain to the internship position. This is not a trivial task and usually requires a few days to complete, but the student cannot register for internship credit until this task is completed and approved by the internship evaluator.

In general, students are encouraged to communicate with the internship evaluator as soon as a prospective internship has been identified because they will need assistance and advice in finding appropriate references.

The overall goal of this deliverable is to provide the student with a set of supporting sources that will provide useful contextual background during the course of the internship and also for the writing of the internship paper.

As soon as possible, students should use the university library's online databases to find articles relating to the tasks and occupation of the internship. For example, if the internship position involves systems analysis and requirements documentation, he/she should seek articles that describe aspects of the systems analyst occupation.

Up to 3 of the articles can be selected according to their topical relationship to the domain of the internship. For example, if the internship is taking place in a government agency, the student may also use some articles, papers or manuals that describe the domain and activities of that agency.

Students are usually discouraged from using books as internship references. This is because books tend to become "symbolic references": they look very impressive on a list of references but are not read in depth or referred to in any detail during the internship or the writing of the internship paper.

Occasionally, the internship evaluator will allow the student to use existing project documentation from the organization sponsoring the internship. Included within this might also be white papers or documentation

from a software vendor's website, if (and only if) the use of a particular software tool is central to the internship tasks.

Web pages are also discouraged from use as references, unless these are articles from online professional or trade magazines that have some editorial review of content (usually the web sites that accompany what is essentially a print publication).

Under all circumstances, ALL references on the list must be submitted in APA format. In addition, the student should *also* include access instructions for each article or paper that is referenced: a web link or, in the case of articles retrieved from the university's online databases, a record or accession number for the article along with the name of the online database from which the article was retrieved. Providing access instructions will dramatically speed up the internship evaluator's ability to review and approve the reference list, thus enabling the student to register for the internship as soon as possible.

### **What are the final deliverables of the internship?**

There are two final deliverables that must be submitted by the intern in order to receive MIS elective credits:

#### *The final paper:*

The intern must write a final paper (minimum length 10 pages) that is reviewed by both the internship site supervisor and the internship evaluator and that meets ALL of the following 3 goals:

- (a) The paper must review the tasks and activities carried out by the intern during the course of the internship project.
- (b) The paper must assess what the intern learned about MIS from the internship project, as well as what the intern learned about MIS project roles.
- (c) The paper must cite from the 10 topical article references found by the intern during the initial certification by the internship evaluator. All these references must be presented in APA format. Whenever these references are available online, web links to the source materials should be included to facilitate review by those evaluating the internship paper.

#### *User or system documentation.*

The intern must create a new piece of user or system documentation to accompany the deliverables of the internship project. This is usually included as an addendum or appendix to the internship report. This documentation must not only set forth a linear sequence of steps/procedures but should also include a diagrammatic representation of the new process/product – this demonstrates that the student has successfully applied what they have learned in MIS 320 (Systems Analysis & Design). In the case of a programming internship, the documentation piece could be a technical reference created for succeeding MIS staff who will have to maintain the new software modules in the future.

The choice of documentation to be submitted is determined jointly by the internship evaluator and site supervisor at the beginning of the internship – this is why the site supervisor and internship evaluator must talk on the phone before an internship can begin.

## What are the steps for certifying, setting up and completing an MIS internship?

The following table describes the sequence of the steps for certification, set up & completion of an MIS internship:

| Step # | Initiating activity/step   | Resulting activities   |
|--------|--|--|
| 1      | <ul style="list-style-type: none"> <li>➤ The student is about to be hired for an internship and communicates with an MIS faculty member to propose an MIS internship for credit.</li> <li>➤ The student should provide contact information (e-mail and phone number) for the prospective work supervisor who would agree to serve as the internship site supervisor.</li> </ul>  | <ul style="list-style-type: none"> <li>➤ The faculty member, as internship evaluator, reviews the tasks and setting of the prospective internship work to see if it can be approved as an MIS internship for university credit.</li> <li>➤ The internship evaluator will contact the prospective site supervisor for the internship in order to understand the internship project tasks and to validate that an appropriate MIS learning opportunity exists.</li> <li>➤ Occasionally, the internship site supervisor will suggest changes to the internship tasks in order to set up an appropriate learning experience.</li> <li>➤ The internship evaluator and internship site supervisor will jointly determine the optimal documentation deliverable that will be produced and submitted by the intern.</li> </ul> |
| 2      | <ul style="list-style-type: none"> <li>➤ Assuming the internship has been approved as an appropriate MIS learning experience, the student goes to the Internship Office to begin completing the Academic Internship Agreement.</li> <li>➤ If the student is an international student, he/she also go to the international students' office on campus to be briefed on additional requirements from that office.</li> <li>➤ The list of internship tasks/activities that is completed on the Academic Internship Agreement is sent by e-</li> </ul> | <ul style="list-style-type: none"> <li>➤ The internship (site) supervisor and the internship evaluator (faculty member) review the set of tasks specified in the Academic Internship Agreement. This task set usually indicates what the occupation of the internship will be (systems analyst, helpdesk, business/process analyst, designer/programmer, etc.)</li> <li>➤ The student should also begin assembling 10 article/periodical references that address the nature of the internship occupation.</li> </ul>   |

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|   | mail to the internship evaluator and internship supervisor for review.   |   |
| 3 | The student discusses with the internship evaluator the set of 10 references (see below) that relate to the nature of the internship occupation. The student sends a preliminary list of 10 article references in APA format to by e-mail to the internship evaluator. | The internship evaluator carefully reviews the 10 references in order to assure that the articles/papers/books/manuals: <ul style="list-style-type: none"> <li>(a) are in the correct format</li> <li>(b) substantively address and support the topic and task goals of the internship</li> <li>(c) are likely to be read and used by the intern during the project.</li> </ul>   |
| 4 | After receiving feedback on the references from the internship evaluator, the prospective intern resubmits an updated list of 10 references.   | If (and only if) an appropriate list of references for the internship paper have been received, the internship evaluator signs the Academic Internship Agreement and the student submits the signed agreement back to the Internship Office.<br><br>If the student is an international student, he/she must also submit copies of the Academic Internship Agreement to the international students' office of the university, which must approve this prior to registration. |
| 5 | Using the Academic Internship Agreement now signed by the internship evaluator, the student registers for internship credits for the MIS 350-I elective course.  | Work on the internship project can now commence.<br><br>The registration triggers the Grades Office to send a copy of the learning evaluation form to the faculty member who is the internship evaluator.   |
| 6 | The student completes the 160 hours of required work on the internship project.  | The student maintains a weekly log of internship tasks and activities for use in drafting the internship paper.<br><br>The student notifies the internship evaluator that he/she has nearly completed the internship and the internship paper will be submitted to the site supervisor shortly.<br><br>The internship evaluator sends the Learning Evaluation form to the internship site supervisor and calls them up to explain to them how to complete this form.        |
| 7 | ➤ The student completes the internship paper and submits it (along with an appendix containing the user documentation  | ➤ The internship paper and the user documentation deliverable are reviewed by the internship site supervisor.<br><br>➤ The site supervisor also completes the   |

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|   | <p>deliverable that was completed on the project) to the internship site supervisor.</p> <ul style="list-style-type: none"> <li>➤ Copies are also sent electronically to the internship evaluator for review.</li> </ul> | <p>Learning Evaluation form, which will be reviewed and approved by the internship evaluator.</p> <ul style="list-style-type: none"> <li>➤ The site supervisor initializes his/her evaluation and recommends a grade of pass or fail.</li> <li>➤ This form is then sent to the internship evaluator.</li> </ul> |
| 8 | <p>The internship evaluator reviews the internship paper, user documentation deliverable and the Learning Evaluation form completed by the internship supervisor.</p>  | <p>The internship evaluator reviews the Learning Evaluation form, adds any necessary notes, and then signs the copy of the evaluation and sends it back to the Grades Office.</p>   |
| 9 | <p>The Grades Office notes the satisfactory completion of the internship and assigns a grade of 'Pass' for the course.</p>   |   |