

# Coverage Of Ethics In The Undergraduate AIS Course(s)

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## Abstract

*The potential for misuse of information due to proliferation of information technologies and reduced control over information makes the inclusion of ethics in the AIS course extremely important. This study provides information about faculty perceptions on the importance of incorporating ethics in the AIS course(s). Results show that faculty rate internal control issues and financial reporting systems topics in the AIS course as most relevant topics for incorporating ethics. The results also show that respondents perceive the auditing course as most important in covering ethics with AIS ranked fourth after auditing, tax, and financial accounting. Additionally, about 34% of AIS faculty do not currently incorporate ethics in their AIS course. These results point to a need for increased awareness of the importance of incorporating ethics in the AIS course(s). Faculty limitations in covering ethics are also presented.*

## Introduction

The inclusion of ethics-related issues into accounting courses is an increasingly important aspect of accounting curriculum design. It is understood that accounting bears a primary responsibility for information processing and delivery. The proliferation of information technologies accompanied by reduced control over and increased potential for misuse of information seems to be valid drivers for increased coverage of ethics in any "information processing systems" course(s). Two recent studies and an editorial related to topical coverage in undergraduate Accounting Information Systems (hereafter referred to as AIS) courses provide the background and the motivation for this research.

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*Readers with comments or questions are encouraged to contact the authors via e-mail.*

The Fall 1996 issue of the Journal of Information Systems includes two papers that address topics of coverage in an undergraduate Accounting Information Systems (AIS) course. Groomer and Murthy (1996), report the results of a survey of AIS faculty indicating that relatively few faculty cover ethics. In an editorial in the same issue, Borthick (1996) suggests an outline for an undergraduate AIS course and does not include ethics or ethics related issues in that outline. In the Spring 1998 issue of Journal of Accounting Education, Theuri and Gunn (1998) also survey both academics and recruiters regarding the relative importance of topics within undergraduate AIS courses. Ethical issues are excluded in the Theuri and Gunn paper also. While it is possible that these authors may have viewed ethics as being incorporated into many topics, no specific reference is made to ethics or ethics-related issues. As a whole, these omis-

sions raise several related questions: 1). Are ethical issues being covered in AIS courses? 2). If they are, what level of importance are they given? 3). If ethical issues are not being covered in AIS courses, should they be incorporated as part of the AIS course? In addition, what are the factors that limit coverage of ethics? The overriding question is: What is the status of ethics coverage in undergraduate AIS courses?

The purpose of this study is to provide information about the relative importance of incorporating ethics-related issues in the AIS course based on opinions of AIS faculty and other non-AIS accounting faculty. The results of this study should be of significance to all accounting faculty and especially the AIS faculty in preparing and improving their accounting curricula. Knowledge of current practice in coverage of ethics-related issues will help accounting educators improve their programs in order to meet the challenge of providing accounting graduates with a more complete education. Therefore, students will become more cognizant of the ethical dilemmas that challenge the accounting profession and the information processing systems overall.

### **Relevant Prior Literature**

#### *The Importance of Ethics in the Accounting Curriculum*

In its report of October 1987, the National Commission on Fraudulent Financial Reporting (Treadway Commission) noted that inclusion of ethics in accounting programs at colleges and universities was at a minimum, and recommended increased coverage of accounting ethics in such programs. McNair and Milam (1993) surveyed accounting faculty to examine their perceptions about ethics coverage in the undergraduate accounting courses. McNair and Milam (1993) found that about 77% of professors include ethics in various accounting courses although 69% of them felt there was need for greater coverage of ethics. Kerr and Smith

(1995) surveyed accounting students about their perceptions regarding coverage of ethics in accounting. Overall, the Kerr and Smith (1995) study found that students indicated that coverage of ethics in accounting courses was very important. Other academics have suggested that it is important and necessary to incorporate ethics in the accounting curriculum (Helps, 1994; Ahadiat, et al., 1993; Katz, 1986; Thompson, 1992). These authors collectively call for additional coverage of ethics into accounting courses.

#### *Methods Used in Covering Ethics*

Kerr and Smith (1995), among others, address the question of whether ethics can be taught in a classroom setting, and what the educator's role should be in teaching ethics to students. They conclude that ethics can be included in the accounting curriculum. Kerr and Smith (1995) are not alone in pointing to some approaches that faculty can utilize in covering ethics. Other researchers (Katz, 1986; Thompson, 1992) have discussed various options for including ethics in accounting. Smith (1993), as an example, found that professors used various methods of covering ethical issues including textbooks, case problems, videotape presentations, educational novels, and articles from various publications. Additionally, Smith (1993) found that textbook usage was limited to a presentation of the profession's ethics code. McNair and Milam (1993) also found that the lecture was the most predominant method of covering ethics, while written cases were the most effective method of covering ethics. They found that three hours was the average time spent on covering ethics per course. In their article, Kerr and Smith (1995) point to various sources of developed case problems and videotape presentation material and they also discuss how students can be involved in learning ethical issues through videotape presentation assignments. Additionally, they point to additional materials like published educational novels (such as *Trap Doors and Trojan Horses* by Collett and Smith, 1991) and sources of published articles. These authors

also point to possible sources of teaching material for ethics related issues that include case materials and readings. In fact, they found that students responded very favorably to innovative teaching approaches. One benefit these authors cite for the use of ethics case analysis is that it provides an opportunity for accounting students to refine their thinking skills. Loeb and Rockness (1992) also suggest that CPA firms should include ethics-related materials into existing CPE programs designed for professional accountants. An interesting finding in their study is that both the academicians and practicing accounting professionals are interested in accounting ethics education that moves beyond the rule of code of ethics and their interpretations.

The finding of the Treadway Committee that ethics coverage in accounting education was at a minimum has been collaborated by other studies (Cohen and Pant, 1989; Armstrong and Mintz, 1989). In their study, McNair and Milam (1993) sought to identify teaching methods used to cover ethics and the perceived effectiveness of those methods and also identify limitations (problems) encountered in including ethics in accounting courses. Two items were found to be the most limiting factors in covering ethics: 1) lack of adequate time to cover ethics, and 2) lack of appropriate ethics materials. These items are included in our survey instrument.

#### *The Importance of Ethics in the AIS Course*

While there has been extensive research to address the issue of covering ethics in overall accounting curriculums, relatively little work has been done to address the coverage of ethics in the undergraduate Accounting Information Systems course. As noted earlier, recent studies discussing the AIS course have not included ethics as part of the course material to be covered (Groomer & Murthy, 1998; Theuri and Gunn, 1998). Other studies in the IS area, on the other hand, have dealt with the inclusion of ethics in IS specific courses.

Even though her study relates to the IS area (and not necessarily AIS), Lewellyn (1996) obtained data about faculty attitudes on the ethical propriety of and estimated involvement with 38 activities in the information systems discipline. She sent a questionnaire by mail to 480 randomly selected IS professors. The primary purpose of the Lewellyn (1996) study was to examine internal attitudes about various behaviors held by academicians in the IS discipline (a replication of the Engle and Smith 1990) study. The results were intended to help professors improve the quality of their instruction by increasing awareness of their collective attitudes. Her results showed that the most discriminating individual characteristic explaining differences in faculty attitudes was appointment level. She found that the IS major at the graduate level explained more differences in attitude and more critical attitudes than any other factor. She pointed to the IS discipline as having a unique set of problems due to its relative youth and interdisciplinary nature.

Cohen and Cornwell (1989) develop a pedagogy for the teaching of ethical principles in IS classes which involves MIS professors providing lead questions and leading discussions on a list of ethical issues as part of their existing IS courses. These authors suggest that the integration of ethical issues into all (or at least most) classes shows students that this topic is not "just one more topic" on an equal level with other courses but rather it stresses that ethics consideration is an issue that pervades thinking in all areas. Cohen and Cornwell (1989) also suggest that having ethics explored by different teachers helps students understand that there is no one right answer. What is important is the process of thinking about ethics. They also identify some of the ethical issues that face IS such as confidentiality in building and in using systems, and data security and providing passwords on a need-to-know basis.

Recent studies in the area of topics covered in the AIS course have provided necessary information useful for developing the undergraduate AIS course. Groomer and Murthy (1996) report the results of a survey of AIS faculty and their chairpersons regarding specific AIS course conduct. As part of their survey, Groomer and Murthy (1996) asked the respondents to indicate the number of class periods devoted to each of 32 topics that were typically found in AIS textbooks. Ethics as a topic was not specifically mentioned in that list of 32 topics. Theuri and Gunn (1998) also surveyed accounting systems faculty and compared their responses to those of accounting graduate employers (CPA firms, corporations, and government). Part of their study sought to identify the importance of AIS topics and the time faculty spent on those topics. Although their survey provided an opportunity for faculty to indicate what "other" topics they cover, ethics was specifically omitted from the list of possible topic areas. In an editorial, Borthick (1996) proposed a set of learning objectives that define systems proficiency for accounting students that includes explanations of activities that students could undertake to develop specific competencies. Those learning objectives and related activities proposed did not specifically include coverage of ethics related issues although other references are made on items that could be integrated in all accounting courses. A common deficiency in each of these studies is the omission of a discussion of the necessity and quantity of covering ethics in the AIS course. The significance of these omissions and the finding that literature is very limited in the area of inclusion of ethics in the undergraduate AIS course motivates us to investigate the relevance and current practice of AIS faculty in the coverage of ethics.

We point to these recent studies, not with intent to label those studies as deficient, but to point to a pervasive lack of overall awareness as to the importance of highlighting the need to

cover ethics in the AIS course. However, if ethics issues are being covered, then our purpose here is to expose this to other faculty and researchers in order to provide complete sources for AIS course development.

#### *Web-Based Surveys*

Studies utilizing the world-wide web to design and administer surveys in the accounting area are just beginning to appear in literature. A recent paper (Turner and Turner, 1998) provides a step-by-step methodology for producing an HTML based survey instrument.

Theuri and Gunn (1998) utilized email-based methodology to send a questionnaire to AIS faculty. Although the Theuri and Gunn (1998) survey instrument was not HTML-based, it utilized the email system to deliver and receive the survey instrument. Because of the ease in the delivery and return of the survey instrument, the technology-based methodology will certainly continue to gain popularity.

#### **Research Design**

In this study, we solicit views of accounting faculty around the United States regarding the coverage of ethics related issues into accounting courses. The specific focus of the research is to analyze faculty opinions regarding the relative importance of incorporating ethics into the undergraduate Accounting Information Systems course.

We solicit views of faculty who teach accounting information systems courses (referred to hereafter as AIS faculty), and also views of faculty who do not teach the undergraduate accounting information systems course (referred to hereafter as non-AIS faculty). Therefore, a sample of AIS faculty served as the experimental group, and a sample of non-AIS faculty as the comparison group. Where relevant, we compare the responses of the AIS faculty with those of non-AIS faculty in order to understand whether

perceptions differ.

The survey methodology used in this study was purposely designed to solicit views from accounting faculty in the most cost and time efficient manner, while maximizing the ease of completing the survey for survey respondents. The design therefore incorporates a soft copy survey instrument that is web-based rather than a postal, mail-based hard copy survey. This methodology also allowed respondents to complete the survey instrument online. This convenience avoided any postal mailing to and from the respondents. The following section details the development of the survey instrument and the sample selection process.

#### *Development of Survey Instrument*

While used extensively, surveys of accounting faculty that rely on paper-based (hard copy) questionnaires distributed and returned by postal mail have many disadvantages. Among these disadvantages are the manual activities involved in printing copies of the survey instrument, addressing envelopes, stuffing envelopes, cost of providing self-addressed envelopes, and the coding of the returned responses. To reduce and/or eliminate the delays, errors, and costs inherent in such a process, we use a web-based online survey instrument in this study. The survey instrument is based on Hypertext Markup Language (HTML) that allows respondents to select responses online as well as submit the results online. There were two copies of the survey instrument. The copy completed by AIS faculty solicited opinions specifically based on the undergraduate AIS course while the copy completed by non-AIS faculty was designed to include ethics coverage in any other accounting courses.

To access the survey instrument, each respondent was instructed to use a mouse to point and click to a web-page address (<http://www.nku.edu/~TurnerL/ques.html>). Once the survey appeared on the screen, the re-

spondent was able to select responses online by mouse clicks. After the survey was completed, the respondent would then submit the completed survey to the researchers by clicking on the provided "Submit" button. The submitted results were transmitted to the researchers via e-mail. These email-based results were incorporated into a database through software that converted the email responses into a database format. These enhancements to the conventional survey methods reduced the typical response cycle time from weeks (perhaps months) to days and at no financial cost.

#### **Sample Selection**

Two sample groups of accounting faculty were used in this research. The experimental group consisted of faculty designated as "Systems" faculty (hereafter referred to as AIS faculty) in the 1998-1999 Hasselback directory of accounting faculty. The comparison group consisted of an equal number of faculty from the Hasselback directory who were not designated as "Systems" faculty (hereafter referred to as non-AIS faculty).

The sample selection process included the identification of all accounting faculty (n=760) across universities and colleges in the United States designated, in the Hasselback directory, as teaching "Systems" course(s). Canadian and other foreign institutions were not included. The corresponding e-mail addresses of these faculty were entered into a database. Where directory entries did not include an e-mail address, the web pages of the individual universities were searched for the missing e-mail address. Of the 760 professors designated as "Systems" faculty, 60 did not have their email address listed in the directory nor on their university's web page, leaving a sample size of 700.

A matched sample (comparison group) of faculty not designated in the Hasselback directory as "Systems" faculty was also selected. The selection of the 700 faculty included a delib-

erate attempt to match the comparison sample to the experimental group based on degree, and rank. Where possible, faculty were selected from the same school. Where a suitable match did not exist at the same school, a similar size school (based on number of faculty) was used in matching comparison subjects. The final samples with complete email addresses included the experimental group with 700 "Systems" faculty and the comparison group with 700 "non-Systems" faculty.

Although both samples of 700 subjects each had email addresses available, 372 of the e-mail addresses were not deliverable to the subjects. The primary reason for the undeliverable e-mails was simply an incorrect e-mail address as listed in the 1998-1999 Hasselback directory<sup>1</sup>. In addition, 61 other subjects excluded themselves from the sample groups for various reasons such as retirement, sabbatical, not familiar enough with the issues on the survey, or not able to access the survey. Excluding these individuals from the sample groups left a final sample size of the experimental and comparison groups of 485 and 482 respectively.

**Administration of Questionnaire**

A copy of the questionnaire was sent by email to both groups of respondents. A total of 297 (30.7%) responses were received within 11 days, with 280 (29%) usable responses. In this mailing each faculty was emailed a cover letter de-

scribing the purpose of the study and instructions on how to complete the web-based form questionnaire. A total of 280 (29%) usable responses were received. Utilizing an unconventional method of survey, we obtained response rates that are relatively higher than those of other studies whose survey results were based on conventional survey administration methods (Lewellyn 1996: 24%; Cargile and Bublitz 1986: 24.8%). The standard method for assessing non-response bias was used. T-tests were conducted for differences between responses for early and late respondents. No significant differences were identified ( $p < 0.05$ ).

The respondents' demographic data was obtained from their survey responses. A summary of the demographic data is provided in Table 1. Approximately 23% of the AIS faculty were Full Professors; 43% were Associate Professors; 29.6% were Assistant Professors, and a combined total of about 4.4% Instructors and Lecturers. The non-AIS faculty respondents were composed of 31.4% Full Professors,

Number of semesters (or quarters) of teaching AIS				
	AIS Faculty			
Summer 1996 to Spring 1999:	5.59			
Summer 1993 to Spring 1996:	5.90			
Summer 1990 to Spring 1993:	5.71			
Academic rank				
	AIS Faculty		Non-AIS Faculty	
	n	percent	n	percent
Professor:	31	23.0%	44	31.4%
Assoc Professor:	58	43.0%	58	41.4%
Assist Professor:	40	29.6%	31	22.1%
Instructor:	3	2.2%	2	1.4%
Lecturer:	3	2.2%	5	3.6%
Highest earned degree				
	AIS Faculty		Non-AIS Faculty	
	n	percent	n	percent
Doctorate:	117	86.7%	116	83.5%
Masters:	18	13.3%	23	16.5%
Bachelors:	0	0.0%	0	0.0%

41.4% Associate Professors, 22.1% Assistant Professors, and a combined 5% of Instructors and Lecturers. When ranked by the highest degree earned, the AIS faculty had 87% with the doctorate and 13.3% with the masters degree. For the non-AIS faculty, 83.5% held a doctorate while 16.5% held a masters degree. In order to gauge the experience level for the AIS faculty, the AIS faculty were asked to provide information regarding how many times (semesters or quarters) they had taught AIS over the three year periods as shown in Table 1. The average number of semesters (or quarters) that the AIS faculty taught AIS for the period Summer 1996 to Spring 1999 was 5.59 times. For Summer 1993 to Spring 1996, the AIS faculty taught AIS on average 5.90 times and for Summer 1990 to Spring 1993 they taught AIS 5.71 times.

**Results**

*Importance of Ethics in AIS Topics*

The AIS faculty were asked to provide an assessment of their perceived importance of ethics coverage in specific AIS topics. The list

of topics was adopted from Theuri and Gunn (1998) who compiled these topics from various AIS textbooks and the Report of the AAA Commission on Contemporary Approaches to Teaching Accounting Information Systems (AAA, 1987). Table 2 presents a ranked summary of the mean importance of covering ethics in each of the listed AIS topics.

Internal control issues, systems auditing (EDP auditing issues and procedures), and financial reporting systems were clearly rated as most important topics for covering ethics related issues. A *t*-test analysis for a measure of differences in topic mean importance attributed to coverage of ethics revealed statistically significant differences ( $p < 0.01$ ) for internal control issues and systems auditing, ( $p < 0.03$ ) for systems auditing and financial reporting systems, and ( $p < 0.00$ ) for financial reporting systems and database management concepts. No other relative mean differences were found to be significant between the topics, precluding the conclusion that any of the other topics is considered relatively more important for inclusion of ethics than the other topics.

**Table 2**  
**Ranked Means of AIS Faculty Perceptions of the**  
**Importance of Including Ethics in Specific AIS Topics**

AIS Topic Area	Mean	Std. Dev.	p-value
Internal control issues	4.22	1.06	<b>0.001</b>
Systems auditing (EDP auditing issues and procedures)	3.76	1.16	<b>0.030</b>
Financial reporting systems	3.43	1.24	<b>0.000</b>
Database management concepts and data modeling	2.69	1.29	0.734
Transaction processing cycles	2.64	1.27	0.540
Systems development life cycle	2.54	1.16	0.875
Decision support systems (including expert systems)	2.57	1.22	0.799
Networks (distributed systems)	2.53	1.23	

*Extent of Ethics Coverage*

All faculty were asked to indicate, on a scale of 1 to 5, the relative importance of covering ethics (or some ethics related issues) in each of the functional areas of accounting. Table 3 presents a ranked summary of the responses. Both the AIS faculty and non-AIS faculty ranked Auditing the highest. Auditing received a mean (standard deviation) score of 4.29/5.00 (0.89) by the AIS faculty and 4.35 (0.89) by the non-AIS faculty). Our results mirror those found by Loeb and Bedingfield (1972) that the auditing course covered the highest amount of ethical issues. The tax course(s) was ranked second in importance by both groups of respondents, followed by financial accounting courses. The AIS course was ranked fourth by the AIS faculty while the non-AIS faculty ranked it fifth (least important in covering ethics related issues). A *t*-test analysis for a measure of differ-

ences in mean importance attributed to ethics coverage in each of the accounting areas revealed statistically significant differences ( $p < 0.01$ ) for Auditing and Tax courses only with Auditing being considered the most important course to address ethics related issues. It is apparent that all faculty respondents strongly feel that the Auditing course(s) and Tax course(s) should cover the greatest amount of ethics related issues in accounting education. No other relatively ranked means were found to be significantly different, precluding the conclusion that any of the other accounting courses should cover ethics issues more extensively than the other.

*Factors Limiting Coverage of Ethics*

The AIS faculty were asked to provide an assessment of the factors that limit their ability to cover ethics related issues in the undergraduate AIS course. 55 percent (77/140) selected the lack of class time to cover ethics as the main limitation. The lack of integration of ethics throughout the AIS text and "Too little ethics coverage in AIS texts" were other limitations receiving high ranking. The least limitation to the coverage of ethics is the "Lack of readings from journal articles on ethics issues". It is interesting to note that faculty indicated that they essentially do not use supplemental readings on ethics from journal articles (Table 4a) but when asked about their limitations in covering ethics, they selected the lack of readings from journal articles (Table 4b) as the least important factor. The implication is that even the existence of journal articles on ethics issues would not lead to accounting faculty selecting that as a source for covering ethics related issues.

**Table 3**  
**Ranked Means of Faculty Perceptions of the Expected Level of Ethics Coverage in Accounting Courses**

<b>AIS FACULTY</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>p-value</b>
Auditing Course	4.29	0.89	0.0000
Tax Course	3.81	1.04	0.0053
Financial Courses	3.46	1.04	0.5078
AIS Course	3.37	1.13	0.1224
Cost/Managerial Courses	3.17	1.05	
<b>NON-AIS FACULTY</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>p-value</b>
Auditing Course	4.35	0.89	0.0000
Tax Course	3.70	1.04	0.0712
Financial Courses	3.49	1.04	0.2020
Cost/Managerial Courses	3.33	1.04	0.3429
AIS Course	3.21	1.13	



<i>Panel A</i>	AIS	Non-AIS
Methods Used to Cover Ethics in Accounting Course	Faculty	Faculty
One chapter in the textbook	17	26
Integration of ethics into several chapters of the AIS text	52	92
Supplemental case book on ethics issues	1	8
Supplemental readings on ethics issues	18	26
Supplemental readings from journal articles on ethics issues	9	17
Instructor prepared cases on ethics issues	23	23
Instructor prepared readings on ethics issues	17	7

<i>Panel B</i>	AIS	Non-AIS
Factors that Limit the Ability to Cover Ethics	Faculty	Faculty
Too little ethics coverage in AIS texts	49	36
Lack of integration of ethics throughout the AIS text	50	36
Lack of supplemental readings on ethics issues	18	16
Lack of supplemental case book on ethics issues	18	13
Lack of readings from journal articles on ethics issues	11	10
Lack of class time to cover ethics issues	77	73
Cost to students to purchase ethics supplements	19	16

The non-AIS faculty were also asked to assess, from the provided list, factors that limit their ability to cover ethics related issues in their undergraduate accounting courses. As with the AIS faculty, 52% (73/140) indicated the "Lack of class time to cover ethics issues" as their most limiting factor and both "Lack of integration of ethics throughout the text" and "Too little ethics coverage in texts" as the next most important factors that limit overall coverage of ethics. The non-AIS faculty agreed with the AIS faculty that the factor that least limits their ability to cover ethics is "Lack of readings from journal articles on ethics issues".

These results point to several issues that can be addressed to increase coverage of ethics. First, both AIS faculty and non-AIS faculty should prioritize their course contents in order to allow "some" more time for ethics related issues.

Secondly, textbook authors could enhance ethics coverage by integration of ethics throughout the text. Devoting a paragraph or two at the end of each chapter to discuss chapter-relevant ethics related issues would provide faculty with additional tools of reference. In addition, incorporating an exercise or two would provide opportunities for students to test their understanding of the related ethics issues. Thirdly, AIS texts should definitely include more ethics coverage either throughout the text or as a complete chapter to be covered towards the end of the course. The results of this survey as reported in Table 2 indicate that it is important that AIS texts incorporate ethics issues in chapters that include coverage of internal controls, systems auditing and financial reporting. These possibilities will reduce the need for faculty to heavily rely on journal articles and eliminate the need to require students to purchase additional ethics re-

lated supplements.

### *Instructional Tools for Incorporating Ethics*

In order to determine what instructional tools (source material) the faculty (both groups) use in covering ethics in accounting courses, seven possibilities were provided on the questionnaire describing the level of usage of each particular source of ethics material. Table 4 presents a summary of the findings.

The integration of ethics into several chapters of the AIS text is the source mostly used. Fifty-two of the 88 (59%) AIS faculty who cover ethics indicated this source as the one they use most often. Instructor prepared cases on ethics issues is the next most utilized source, while supplemental readings, one chapter in the AIS text and instructor prepared readings, supplemental readings from journal articles, and supplemental case book are other sources of material utilized, in that order. The integration of ethics into several chapters of the accounting text is also the source mostly utilized by non-AIS faculty followed by the use of one chapter in the textbook. The source least utilized by non-AIS faculty is the instructor prepared readings on ethics issues. From these results, it is apparent that non-AIS faculty tend to rely on one chapter in their textbook as a source for ethics material while the AIS faculty tend to use supplemental readings on ethics issues. It is also evident that AIS faculty rely on supplemental readings from journal articles as a source for ethics issues less frequently than do the non-AIS faculty.

### *Profile of AIS Course*

Table 5 presents a summary of demographic information about the AIS course at the institutions of the respondents.

*Students:* About 65% of the AIS faculty respondents indicated that the AIS course is primarily offered to juniors. About 29% indicated that the AIS course is primarily offered to sen-

iors while less than 6% of the respondents indicated that their AIS course is primarily offered to sophomores and freshmen. Similar results were obtained by other researchers (Groomer and Murthy, 1996; Theuri and Gunn, 1998). Groomer and Murthy (1996) also found that the AIS course was primarily an undergraduate offering (p.105).

*Relationship with Auditing Course:* The AIS faculty were asked to indicate the relationship between the undergraduate AIS course and the undergraduate Auditing course in terms of mandated sequence. Sixty-one percent (83/136) of the respondents indicated that the AIS course is a prerequisite to the Auditing course. About 30% of the respondents indicated not having a prescribed sequence between the two courses. Only 7.4% (10/136) indicated that AIS is co-required with Auditing. About 4% require the Auditing course as a prerequisite to the AIS course. These findings differ from those of Groomer and Murthy (1996) indicating a trend towards the AIS course being currently enforced as a prerequisite for Auditing.

*Textbook Used:* Table 5 presents the results of the various textbooks used by AIS instructors. It was rather interesting to note that about 25% of the respondents use other than the textbooks provided on the list.

*Ethics Incorporated:* All faculty were asked whether or not they incorporate ethics into their courses. About 66% of the AIS faculty do incorporate ethics into their AIS courses, while 34% do not. Of the non-AIS faculty, 88% do incorporate ethics into their accounting courses. Only 12% of non-AIS faculty do not incorporate ethics in their accounting courses.

### **Limitations and Conclusions**

The purpose of this study was to provide information about the relative importance of incorporating ethics-related issues in the AIS course based on opinions of AIS faculty and

**Table 5**  
**Demographic Information on the**  
**Respondents' Undergraduate AIS Course(s)**

Grade level at which the AIS Course is offered		
	Number	Percentage
Freshmen:	1	0.7%
Sophomores:	7	5.1%
Juniors:	88	64.7%
Seniors:	40	29.4%
Relationship between the AIS course and the Auditing course		
AIS prereq. To Auditing:	83	61.0%
AIS co-req. with Auditing:	10	7.4%
Audit prereq. To AIS:	5	3.7%
No relationship:	38	27.9%
The textbook used in the undergraduate AIS class		
Bodnar & Hopwood:	12	8.8%
Boockholdt:	10	7.4%
Gelinas, Oram & Wiggins:	8	5.9%
Hall:	15	11.0%
Hollander, Denna & Cherrington:	12	8.8%
Leitch & Davis:	0	0.0%
Moscove, Simkin & Bagranoff:	7	5.1%
Murthy & Groomer:	4	2.9%
Romney, Steinbart & Cushing:	18	13.2%
Smith & Smith:	2	1.5%
Wilkinson & Cerullo:	7	5.1%
Other:	35	25.7%
Not Reported:	6	4.4%
Faculty that indicate the incorporation of ethics		
	AIS Faculty	Non-AIS Faculty
Yes, ethics is incorporated	65.7%	87.1%
No, ethics is not incorporated	34.3%	12.9%

other non-AIS accounting faculty. In addition the study sought to provide information about faculty perceptions of the importance of covering ethics-related issues in non-AIS accounting courses. The actual level of ethics coverage

from both sample groups was also presented.

Limitations inherent in any survey-based study apply to this study as well. The inability to survey the entire population of faculty


leaves a possibility of deviations from reported results. We believe, however, that the responses received provide a reliable source of relevant information since the results and the response rates in this study are moderately higher than the average rates obtained by other researchers. Our use of the standard method of assessing non-response bias provides us with an additional basis for reliance on the results obtained.

An overriding limitation is the recognition of the fact that not all institutions operate exactly the same way and furthermore, not all institutions go about structuring their accounting programs similarly. Each institution should, therefore, interpret the presented results in light of this observation.

Even with these limitations, we hope that the results provide a basis for re-evaluating the adequacy of ethics coverage in the "appropriate" courses. While all faculty seem to agree as to the course/s most appropriate for covering ethics issues, there is still over a third of AIS faculty (and a tenth of non-AIS faculty) that are not incorporating ethics in the AIS (and other than AIS accounting) course(s). The survey results indicate that accounting faculty believe that ethics should be incorporated into the undergraduate AIS course. In addition, AIS faculty strongly believe that within the AIS course, the topics of internal control, systems auditing, and financial reporting systems should include coverage of ethical aspects.

In addition, there is clear disparity of sources for ethics related issues between AIS and non-AIS faculty. This disparity could possibly be an indicator of the AIS texts not providing adequate coverage of ethics issues. Ultimately, the real issue may be the need to determine the best way for faculty to arrive at a realistic determination that accounting graduates from their school are well equipped in the ethics area.

We hope, most importantly, that this study has raised the awareness of the need to ad-

dress the quantity of ethics issues covered in AIS courses. The availability of sources or material for ethics related issues could be addressed in more open (directed) ways. Incorporating these measures in the accounting curriculum will enhance the readiness for graduates as far as the demand for ethics conscious individuals is concerned within the accounting profession. From a faculty perspective, the graduates' cognition of the ethical dilemmas that challenge the accounting profession is an outcome that educators should hope that their accounting curriculums are achieving. 

#### **Endnote**

1. An example of an undeliverable address as listed in Hasselback (1998) is *user@sba.laws.sba.muohio.edu* whereas the correct address is *user@muohio.edu*

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**Notes**