University of Glasgow

Internal Audit Update and Annual Report

Audit Committee Meeting

23 November 2006

Please note that a hard copy of this report with A3 size appendix page will be posted directly to Audit Committee members and attendees.

Deloitte.

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Appendix A – Revised Internal Audit Plan 2006/7

Introduction and Executive Summary

As Internal Auditors, our role is to provide the Audit Committee, University Court and management with independent assurance as to the adequacy and effectiveness of the systems of internal control we review and to report weaknesses identified together with recommendations for improvement. We fulfil this role by performing appropriate audit work as agreed with the Audit Committee. The key messages for the Audit Committee for this meeting are as follows:

- Our work in respect of the year 2005/06 has continued in the last month and we have produced reports including recommendations for improvement in respect of Registry Revenue, Accommodation Revenue, and IT Governance and Controls. The results of these reviews are summarised on pages 4-5.

- The results of our Registry and Accommodation Revenue reviews highlighted several opportunities for improvement but no recommendations that have been rated Priority One.

- Our IT Governance and Controls review has highlighted a number of issues around IT security, virus protection, change management and backup processes. Our team are working closely with the Director of IT and have given a presentation to the IT community including central and faculty-based IT staff. Our 2006/07 audit plan will continue to place a focus on IT related processes and systems.

- To provide additional assurance over the payroll processes, in particular since the system has recently been upgraded, we have conducted a data analysis project. The results of this are positive with a small number of minor recommendations made to improve the processes and cleanse the data. This is summarised on page 6.

- Follow up work has been undertaken on prior year internal audit recommendations to assess the action taken by management. This work has focused on the higher priority issues only, and the results highlight that over 75% of recommendations have been actioned by management. Results are included on page 7.

- Our overall assessment, considering the work we have undertaken to date, is that there is an adequate framework of control across the systems examined. This is subject to the satisfactory implementation of our recommendations, in particular those rated Priority One. Our annual internal audit report is contained on page 9.

- Our recommendations to date have been fully agreed and supported by University management who have provided comprehensive responses and detailed action plans for improvement.

- Our audit plan has been agreed for 2006/07 and work has commenced in the areas of Research Management, General Ledger and Agresso User Profiles.

- Initial planning has commenced for our reviews of HR Recruitment & Selection and Governance, which we intend to commence in the next month. Some other minor amendments have been made to the 2006/07 plan – see Appendix A.

Overall Activity Summary

The following table provides a summary of the work we have undertaken in respect of the year ended 31 July 2006, and the work we have commenced in respect of the year ending 31 July 2007.

Project Title	Status	Time to Date (days)	Number of Recommendations		
2005/06			**Priority 1**	**Priority 2**	**Priority 3**
End to End Review - Payroll	Complete	26	2	9	8
End to End Review - Purchase to Pay	Complete	29	4	15	2
End to End Review - Revenue - General Sales Ledger & Research	Complete	23	4	10	0
End to End Review - Revenue - Registry	Management comments received	16	0	5	3
End to End Review - Revenue - Accommodation	Complete	11	0	2	0
Review of IT Governance and Control	Complete	18	0	7	1
Payroll Data Analysis	Draft report stage	6	0	0	4
Risk Workshop	Complete	6			
IT Risk Workshop	Postponed, awaiting revised date	1			
Follow up on 2004/05 Recommendations	Complete	7			
Management and Planning Meetings (Finance, IT, Faculty Secretaries etc)	Complete	16			
		159	**10**	**48**	**18**
2006/07					
Review of Agresso User Profiles	Fieldwork ongoing	2			
Review of Research Management	Draft report stage	17			
Review of General Ledger Controls	Fieldwork ongoing	12			
IT Community Presentation	Complete	0.5			
Planning and Management Time	Ongoing	4			
		35.5			

Project by Project Summary

A summary of the projects which have been undertaken since the last meeting is outlined on the following pages. Where applicable, the 'temperature gauge' is intended to provide Audit Committee members with a relative feel for the impact and overall importance of the findings of each project.

	Positive control environment - very few control gaps or weaknesses noted
	Minor control gaps and weaknesses identified
	Control gaps and weaknesses identified which must be addressed but no critical or material issues
	Important control gaps or weaknesses identified - an important report for Audit Committee attention
	Fundamental control breakdown - a critical report for Audit Committee attention

Project by Project Summary

Review of Revenue - Registry

As part of our work on revenue controls, we reviewed the processes within Registry for the calculation of student fees, issue of invoices and recovery of outstanding amounts owed. While we identified a number of specific control weaknesses and opportunities for improvement, there were no fundamental control breakdowns identified.

The key observations from our review were in relation to the lack of formalised procedures regarding the management of outstanding debt and the associated reporting to Central Finance. Our recommendations relate to the following:

- We noted a number of unallocated invoices, credit notes and cash receipts with some dating back to 2002. Management should aim to remove the ability to create an invoice/credit note against a suspense account. More formal reviews of suspense balances should be undertaken and these balances allocated and cleaned out on a timely basis.
- Standard reporting from Student Records System is limited (eg: no reports on aged debt or suspense account balances). These monitoring reports should be developed and run at least monthly.
- Reminder letters for chasing student debt are not produced and sent regularly. Arrangements for passing debt to collection agencies could be improved by forwarding unpaid debt straight after the third reminder letter has been unsuccessful.
- A log of all credit card transaction numbers should be maintained, in particular to ensure there is appropriate back up for all refunds through the credit card terminals.
- Testing exceptions: invoice batch validation reports not filed or reviewed and limited approval documentation to evidence fee waivers or discounts for staff/students.

Review of Revenue - Accommodation

Our work on revenue controls included a separate review of the processes and controls for identification and recovery of accommodation revenue. The processes were generally satisfactory and our review did not highlight any critical breakdowns in control.

Our two recommendations were in relation to:

- The planned implementation of a new system should improve reporting capabilities – there is a need to monitor the progress of implementation and ensure compatibility with Agresso.
- There are opportunities for centralisation to increase efficiency, eg credit control, cash collection and bank reconciliation activity is carried out separately by the Accommodation team.

Project by Project Summary

Review of IT Governance and Controls

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The purpose of this review was to conduct an overview assessment of the University's IT environment. Whist we did not identify any significant control weaknesses in the processes supporting the University's IT operations a number of areas of potential improvement were noted. A number of these opportunities relate to the evidence supporting the controls in operation and in the general reporting of the IT department's activity. Improvements in these areas will allow IT management to gain additional comfort over the operation of the controls it has implemented. Additionally, the formal definition of Service Level Agreements (SLAs) and the associated monitoring will permit IT management to measure the performance of the department.

The following summarises the key findings from our review:

- Individual Faculties have the ability to override the default Netware password settings specified by the Computer Services team potentially weakening the overall security of the University's Netware environment.
- Environmental controls including fire detection, suppression and air conditioning provisions in the University's centrally managed server rooms should be reviewed to ensure they are appropriate to the size of each facility and the equipment hosted. If such provisions are inadequate this may impact the availability of key IT systems leading to disruption of University operations.
- Formal change management procedures are not systematically employed to manage changes to the University's operating systems and network infrastructure. Without these procedures there is a risk that unauthorised changes may be made to University IT systems potentially leading to loss of data and system availability.
- Changes to centrally managed applications such as Agresso, the HR system and the Student Records application are not consistently supported by formal test documentation. Changes to the University's operating system and network infrastructure do not undergo regression testing. The lack of formal testing increases the risk of changes being implemented which may not meet the needs of the University and impact on system reliability.
- A number of issues relating to the University's overnight backup processes were identified focusing on the lack of formal evidence to support the review of the log files, backup process outcome and backup issue resolution.
- The review of batch-processing logs which detail the results of overnight finance operations and data transfers between University applications are not formally recorded. Without a formal review there is a risk that problems with these batch processes may not be identified increasing the risk of data corruption impacting the University's operations.
- The provisions in place relating to performance and capacity monitoring of University systems do not include the monitoring of server utilisation and disk capacity. Without this monitoring there is a risk that capacity and performance problems will not be identified until they occur potentially impacting the continuity of University IT services.
- The recording of IT incidents in the helpdesk application is not pervasive throughout the Information Services department. As a result IS management may not have visibility of all issues affecting the University's IT systems and therefore may be missing potential opportunities for service improvement.
- Service levels have not been agreed between IS and University management which may result in pressure on the IT department to meet the expectations of customers.
- The number of Faculty-managed computers running without up-to-date anti-virus software installed cannot be accurately determined due to a lack of central control. This increases the risk of unprotected computer equipment connecting to the University's network infrastructure.
- There is no formal process to grant access to or review who has access to the University's server rooms. This may result in inappropriate access to these facilities increasing the risk of loss or damage to University IT equipment.

Project by Project Summary

Payroll Data Analysis

Following the results of our Payroll Review, our specialist Data Management team carried out a series of data analysis tests on the core payroll processing system and data to help confirm the accuracy of the payroll calculations. The following key tests and calculations were among those conducted:

- Payroll re-performance for the month of July 2006
- Profiling of Age of Payroll Recipients
- Identification of Employees with Unusual Dates of Birth
- Analysis of incomplete address information
- Extract of Highest 10 Payments for July payroll
- Extract of Lowest 10 Payment for July payroll
- Identification of temporary/blank National Insurance Numbers

Our re-performance of payroll calculations was successful and no notable exceptions were identified in the data analysis.

As noted in our main Payroll report the data structures within the payroll system are complex and we have identified a number of technical improvements which we will progress with the University IT team.

Follow Up on Prior Year Recommendations

We conducted a follow up of the 'fundamental' audit recommendations raised during 2005/06 by the previous Internal Audit team. The following table provides an overview of progress to date:

Report/Review	Total Number of Fundamental Rec's.	Implemented	Partially Implemented	Not Implemented
Faculty of Biomedical & Life Sciences	6	6	0	0
Faculty of Physical Sciences	4	3	1	0
Faculty of Education	3	2	1	0
Full Economic Costing Review	2	2	0	0
Faculty of Information & Mathematical Sciences	0	0	0	0
Estates Pre-contract Stage Review	4	2	2	0
Information Security Review	14	10	4	0
	33	25	8	0

The statistics above show the overall progress with a total of 76% of fundamental recommendations now implemented. All other recommendations have received some attention but are not yet complete.

The eight partially implemented recommendations relate to:

- The Physical Sciences faculty should implement controls to monitor the movement of fixed assets and record their location accurately;

- The Faculty of Education should ensure their fixed asset register is maintained up to date, in particular relating to acquisitions and disposals;

- Estates projects should include a quantification of the revenue consequences prior to authorisation, and this is reliant on the roll-out of a standard business case which is still to be completed;

- Capital investments to grant a lease to a third party should be more fully agreed in advance of project authorisation;

- Policy documentation in relation to information security should be more formally controlled;

- A programme of awareness training for information security should be established;

- A compliance auditing mechanism should be established and formalised between Internal Audit and the Computer Emergency Response Team;

- Staff may be using unmanaged client devices which may lack firewall, antivirus and software patch protection. A program to reduce the proportion of unmanaged client devices should be established.

Priority One Recommendations

As summarised on page 2, we raised a total of 10 Priority One recommendations during the year. These related to the following projects:

Review of Payroll

Two Priority One recommendations were raised in respect of the current lack of checking controls over the manual inputs to the payroll system and the need for a formal process for identifying and recovering payroll overpayments. Clear action plans have been put in place to address these control weaknesses.

Review of Purchasing and Accounts Payable

Our review of Purchasing and Accounts Payable highlighted four Priority One recommendations. These were in respect of:
- The need to implement stronger controls around the maintenance of supplier details, to reduce exposure to the risks of fraud or error relating to supplier details. Management have agreed to tighten controls by reviewing access rights and running a report showing all changes processed to enable independent review.
- Expenditure by purchasing cards should be subject to consistent controls/reviews and the rules around purchasing card expenditure should be reiterated.
- The delegated financial authority signatory listing, used to evidence the authority of a number of documents, was found to be out of date and not readily available for all users. Management intend to perform a complete review and update of this control document.
- A lack of segregation at Faculty and department level where purchase orders and invoices are processed by the same person. Management have agreed to review the access rights in order to identify and resolve areas of poor segregation.

Review of Revenue – General Sales Ledger

Our review of controls over the general sales ledger identified four Priority One recommendations. These related to:
- The need for a complete process redesign, as the current process for raising a sales invoice is manually intensive and not consistent across the University. The Phase 3 upgrade to Agresso is intended to address this by introducing new functionality during Summer 2007.
- There are significant opportunities for improvement by centralising some of the functions currently carried out by a number of local teams throughout the University including cash collection, credit control and external debt collection. Management have agreed to review the current practices and implement more efficient and controlled processes.
- A number of departments, most noticeably the Vet School, do not record sales invoices on the sales ledger. This results in an inability to quantify overall revenue, validate payments and manage credit control consistently. Management have agreed to review and improve the procedures.
- There are no authorisation controls around the issue of invoices and credit notes resulting in the potential for anyone to raise an invoice or credit note on behalf of the University. Management will take this issue forward as part of the Agresso upgrade.

Annual Internal Audit Report

Report to the Audit Committee

As Internal Auditors we are required to provide the Audit Committee with an Annual Internal Audit Report. The University Court and its management are responsible for ensuring that a system of control, financial and otherwise, is established and maintained. This is in order to carry on the operations of the University in an orderly and efficient manner, to ensure adherence to management policies, to safeguard the assets, and to secure, as far as possible, the completeness and accuracy of records. Our responsibility as internal auditors is to evaluate significant systems and associated internal controls and to report to the Audit Committee on the adequacy of such controls and systems. We cannot examine the whole system of controls, financial or otherwise, nor is Internal Audit a substitute for management's responsibility to maintain adequate systems of internal control over financial or operational systems.

In considering our assessment of the framework of controls we have taken the following into consideration:

- results of audits undertaken during the year;
- the balance of probity work against review of management arrangements and value for money work;
- follow up action taken in respect of last year's audit work;
- our perception of the extent of 'control awareness' amongst the staff and management of University of Glasgow.

On the basis of work undertaken for the year ended 31 July 2006 we consider that University of Glasgow generally has an adequate framework of control over the systems we examined as summarised on page 2 (subject to implementation of the recommendations). In providing such an assessment we would draw to your attention our summary findings as presented in our individual reports issued throughout the year and particularly the Priority One recommendations highlighted on page 8.

We take responsibility for this report, which has been prepared on the basis of the limitations set out on page 10.

Statement of Responsibility

We take responsibility for this report which is prepared on the basis of the limitations set out below.

Deloitte & Touche LLP
Glasgow
November 2006

The matters raised in this report are only those which came to our attention during the course of our internal audit work and are not necessarily a comprehensive statement of all the weaknesses that exist or all improvements that might be made. Recommendations for improvements should be assessed by you for their full impact before they are implemented. The performance of internal audit work is not and should not be taken as a substitute for management's responsibilities for the application of sound management practices. We emphasise that the responsibility for a sound system of internal controls and the prevention and detection of fraud and other irregularities rests with management and work performed by internal audit should not be relied upon to identify all strengths and weaknesses in internal controls, nor relied upon to identify all circumstances of fraud or irregularity. Auditors, in conducting their work, are required to have regards to the possibility of fraud or irregularities. Even sound systems of internal control can only provide reasonable and not absolute assurance and may not be proof against collusive fraud. Internal audit procedures are designed to focus on areas as identified by management as being of greatest risk and significance and as such we rely on management to provide us full access to their accounting records and transactions for the purposes of our audit work and to ensure the authenticity of these documents. Effective and timely implementation of our recommendations by management is important for the maintenance of a reliable internal control system.

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Appendix A – Revised Internal Audit Plan 2006/07

PROCESS AREA	PROJECT DESCRIPTION	DAYS	TIMING	PROJECT SUMMARY
			2006/7	
Planning & Strategy	Review of Business Continuity Planning	15	MAR	The University's arrangements for business continuity in the event of a significant incident or disaster have not been formally reviewed by internal audit for several years. This review will cover all key aspects of Business Continuity Planning including documentation, project management, quality of plans and testing arrangements. This will provide a sound basis for assisting the University to further develop existing arrangements.
Core Operations	Review of Research Management Process	50	OCT / JAN	The output from the Business Risk Workshop has underlined the importance of the research management process to the achievement of the University's overall objectives. Significant efforts will therefore be focused on looking at the processes the University applies to identify, develop, deliver and financially manage research activity. Our work will be split into two separate projects looking at the pre and post award elements of the
	Review of Faculty Secretary Management Activities	15	NOV	Consistency and standardisation of this process is a key driver for the University. This review of Faculty Secretary activities will help to drive insights into management activities and approaches, at faculty level with the aim of taking the best techniques and practices and sharing these University-wide.
Support Processes	Review of Faculty Finance Management	15	DEC	This review will assess how the various Faculties organise and structure their financial management resources and how they interact and operate with Central Finance.
	Review of University Transport	10	DEC	In terms of key support services, University Transport is an asset-intensive and relatively expensive service which, in comparison with other support services, merits focus in year 1.
	Review of Performance Appraisal and Management	10	MAR	A number of key risks highlighted at the business risk workshop related to staff performance, managing under performance, staff morale and communication. With targeted support from our specialist Consulting colleagues, we will assess the University's overall approach to performance appraisal and management.
	Review of HR Recruitment and Selection	15	NOV	Our 2005/6 work on payroll highlighted the significant use of agency and temporary staff across the University Faculties and Departments. This review will assess how this area of spend is managed, monitored and controlled across the University.
Financial Management Processes	Review of General Ledger Controls	15	NOV	This review will encompass focused testing around the key financial controls related to the day to day management and control of the general ledger.
	Core Control Testing - Payroll Process	20	MAY	Testing of key authorisation and process controls over the payroll process given its overall significance to the annual expenditure budget.
	Core Control Testing - Purchase to Pay Process	15	APR	End to end testing of key authorisation and process controls over the accounts payable process given its overall significance to the annual expenditure budget. Focus on key controls testing.
	Core Control Testing - Revenue and Income Process	15	FEB	End to end testing of key authorisation and process controls over the revenue process given its overall significance to the annual income budget. Focus on key controls testing.
	Review for Unusual Expenditures	10	JAN	Our accounts payable testing in 2005/6 underlined the wide variety of items which are purchased by the University over the year. This review will specifically focus on identifying any unusual or inappropriate purchases.
	Review of Budgetary Control	20	JAN	Given the utmost importance of achieving financial balance and stability it is important that the overall process for managing and controlling budgetary performance is subject to review. This will include consideration of the budget setting process as well as the monitoring, management and action response process at key selected departments across the University.
	Review of Campus Security	15	FEB	This review will assess the effectiveness of security arrangements throughout the University, including visitor entry records, camera and detection equipment, entry pass management, security staff presence at major buildings and the central management of security activity.
Information & Communications Technology Risk	Review of ICT Strategy and Governance	15	FEB	This review will assess how the ICT strategy and overall governance of IT within the University is managed and controlled. Aligned with the results of the IT risk workshop this will provide a comprehensive view of the current and forward strategic plan for IT within the University.
	Review of Information and Network Security	20	MAR	The University has a complex and diverse range of information assets as well as a complex network structure in place. It is critical that these are robust, well managed and protected from internal and external threats. This review will assess the quality of controls around information and network security across the University's operations.
	Review of Software License Management	15	APR	It is critical that the wide variety of software in use within the University is properly managed and controlled and that software license arrangements are effective. This review will assess the adequacy and effectiveness of controls in this area.
Key Business & Systems Change	Review of Key Projects - Research Management Software	15	NOV	This review will focus on the in-house development of the new research management software. Project management, cost control and performance / delivery will be considered and assessed.
Legal, Regulatory and Business Risk Management	Review of Corporate Governance	15	NOV	An objective assessment of the overall framework of corporate governance within the University has not been undertaken in some time. This review will consider current University practices, other University approaches and the potential impact of recent developments in general corporate governance practice.
	Review of Risk Management	10	DEC	As a key element of the overall corporate governance framework, it is important that the University's internal risk management process is subject to independent review and scrutiny.
Follow Up	Follow Up on Prior Year Recommendations	20	VARIOUS	It is important that adequate time is devoted to comprehensive follow up on the implementation of prior year recommendations.
Audit Committee	Planning for and attendance at Audit Committee Meetings	15	VARIOUS	Time for preparation, planning and attendance at Audit Committee meetings.
Internal Audit Planning	Overall Internal Audit Planning	5	SEP	Development, update and maintenance of the annual audit plan and strategy.
Contract Management	Overall Contract and Client Management	20	VARIOUS	Monthly update meetings with management as well as regular liaison and communication meetings as required.
Contingency	Contingency Allowance	10	VARIOUS	Allowance for additional projects or short notice requests which may arise during the year.
		400		