Kirkwood
COMMUNITY COLLEGE

College Procedure:	**702.1 – Data Assurance**
Policy Reference:	**702 – Data Assurance**
Responsible Department:	**Information Technologies**
Approval Authority:	**Cabinet**
Procedure Owner:	**Vice President, Information Technologies**
Effective Date:	**2/9/2017**

Version Number: 2
Legal Counsel Reviewed (yes/no): No
Legal Reference(s):
Scope: College-wide

Reason for Procedure

Data maintained by Kirkwood Community College is a vital asset; the institutional data assets need policy, governance and management to provide meaningful and accurate information to make decisions.

Access to information is also an important consideration; defining who requires access to what kind of information and permissions will be defined by position type for clarity and ease of administration. As a rule, all internal customers of information will have access to vetted reports and data marts. Only Information Technology Professionals will have access to transactional data that will be used for comparison and testing purposes.

Kirkwood is the owner of all transactional, administrative and operational data, which exists in any database at the College. The data is to be used to conduct business at Kirkwood, including but not limited to: institutional research, business analysis, business intelligence, marketing analysis, student operations, financial operations, and human resource operations. Within this context, vetted reports and data marts will be made available to qualified and trained employees in order to promote efficient and effective processes to support learner success.

The Procedure

Data Resource Principles:

The purpose of the procedure is supported by these principles:

- Data as an Institutional Resource. All data using College resources is owned by and is considered an important asset of Kirkwood Community College. Any data element that satisfies one or more of the following criteria is subject to the Data Resource Policy:

  o It is utilized in the planning, management, or monitoring of Kirkwood Community College academic and administrative functions.

- o It or its derivatives are used to inform the organization at an enterprise level.
- o It is included in an official Kirkwood Community College academic or administrative report or research.
- o Another data element is derived from its value.
- o It is included and/or listed within any local, State, or Federal Statute or Law.

- **Purposeful Collection**

  Kirkwood will create, monitor and revise processes that allow the collection of data at a point as close to the information source as possible. Entry or modification of data during intermediary processes will be permitted only if it adds value to the information. When data must be input through an intermediary process, training, audits, proactive systematic data validation methods and coaching will be put into place to ensure accuracy and minimize duplicated effort.

- **Data Sharing, Access and Safeguarding**

  Kirkwood is committed to providing highly qualified and trained decision makers with appropriate academic and administrative data required to make information relevant. The process of defining who requires access to what kind of information and corresponding permissions will be defined by position type for clarity and ease of administration. As a rule, all internal customers of information will have access to vetted reports and data marts. Only Information Technology Professionals will have access to transactional data for non-transactional purposes; including comparison and testing purposes. Individuals must take training, be certified through an assessment method and sign a use of electronic resources policy to become database users.

- **Accuracy and Consistency**

  In order to maximize efficiency, yet provide for consistent data and format throughout Kirkwood's database systems, a single consistent set of data definitions and business rules will be utilized. Every effort will be made to consolidate databases, and maintain a single authoritative database. When multiple data sources are required, database users will comply with a standard data format and database structure. Audit reports will be created, maintained and made available to functional managers whose responsibility will be to ensure their staffs are adhering to standard processes in accordance with documentation and training. These same audit reports will be made available and reviewed regularly for compliance and adherence by the Information Excellence Governance Board.

Data Resource Policy Objectives:

- Ensure validity of the data including accuracy, timeliness and definition.
- Ensure the security of the data including confidentiality and protection from loss.
- Ensure the right people have access to the right information when and how they need it.
- Ensure data literacy among users of information.
- Ensure maximum clarity and efficiency of operations supporting our informational resources.

Data Management Roles and Responsibilities:

- **Executive Director, Infrastructure and Executive Director, Application Support and Development Technology Services**

  Executive Director, Infrastructure and Executive Director, Application Support and Development Technology Services are the Kirkwood officials responsible for overseeing the technical management of the College information systems. They have the responsibility of maintaining the hardware and software, where the databases are stored and the ongoing stability to assure accessibility of the data to the users of the data. They are also responsible to the College to provide vision and make recommendations for the improvement and continued development of the technical system to meet Information System objectives.

- **Technology Services Leadership Team**

  The Technology Services Leadership Team has the final authority to set the data management policies and procedures for the College. They are also responsible for the assignment of data management accountability. They will review all proposed changes to business processes, business rules, introduction of new systems, new reporting requirements, training processes and procedures and other requests that require application of the Data Resource Procedure. They will also be a second level of oversight for informational audit reports.

- **OTAC Operational Technology Advisory Committee**

  The Operational Technology Advisory Committee will be responsible for creation and maintenance of standard definitions, standard business rules, training, business process evaluation, and audit reports in their own areas. OTAC will share best practices, documentation, processes and policy developed for each functional area. They will review updates to the ERP system and ancillary systems that are part of the information footprint for understanding and input. The Technology Services Leadership Team will provide the guidelines for the operation and organization of the Operational Technology Advisory Committee.

- **Information Technologies Stewards**

  The staff in Information Technologies is responsible for facilitating access to the data stored, processed or transmitted at the College while ensuring the confidentiality, integrity and availability of the data per the College's standards for data collections, definitions, and format. In technology related environments, cohesive data architecture and data standards are included. Examples of the contexts included within their responsibility are:

  - Computer operating environments (UNIX, Windows, Macintosh, etc.)
  - Data administration environments (data standards and integrity, interfaces, enterprise reporting, data marts and warehouses)
  - Database management environments (Oracle, Sybase, SQL Server, Access, etc.)
  - Application environments (Colleague, Raiser's Edge, Lumens, Angel, etc.)
  - Network environments (electrical, optical, microwave and wireless networks, routers, switches, firewalls, etc.)

- **Kirkwood Data Security Officer**

The Executive Director, Infrastructure Technology Services or his/her designee is responsible for all Kirkwood Community College data security. The responsibilities include:

- o Providing guidance for the OTAC as they develop and implement policies, processes, training and communication for security measures.
- o Providing guidance to the Technology Services Leadership Team as they assess confidentiality, integrity and availability objectives for data under their control.
- o Reviewing the effectiveness of security related implementation efforts.
- o Keeping abreast of security related issues internally within the college community and externally throughout the information technology marketplace.

- **Primary Department Information Stewards**

  The Director or their designee will be responsible for the day-to-day maintenance of the data integrity within their department. Each functional area has the responsibility to capture, maintain, audit and otherwise ensure the integrity of the data for their area. One individual from each functional area with oversight of the quality of their data will serve as the point of contact for the OTAC and Information Technologies for all operational matters related to data. It will also be this person's responsibility to follow all change management rules, to ensure all changes are socially processed by the Technology Services Leadership Team, OTAC and Information Technologies and tested, trained and communicated fully prior to implementation.

- **General Information Stewards**

  General information stewards are individuals who access Kirkwood data in order to perform their assigned duties or to fulfill their role for Kirkwood. General information stewards are responsible for protecting their access privileges and for following all policies regarding data access and sharing as well as practicing good judgment and discretion concerning data use.

OTAC Team and Process:

Kirkwood will establish and maintain an OTAC team with the purpose of reviewing all changes to business processes, business rules, introduction of new systems, review of new reporting requirements, training processes and procedures and other requests that would need understanding, review and application of the Data Resource Policy. The OTAC Team will also review the information audit reports to ensure the functional managers are performing their duties. The side benefit will be increased data awareness among Cabinet members and the areas they represent.

Standard Data Definitions and Data Mapping

Kirkwood will decide on official and standard data definitions, these will be available online to every employee at the College at all times. Research, reports and information created from Kirkwood's data resources will adhere strictly to those data definitions. Kirkwood will produce maps of Kirkwood's data resources including:

- A map containing all systems housing data and the relationships and key fields that join those systems.
- The table structures and data elements of each of those systems.
- Data warehouse and data mart level maps.

- A unified overarching map that strings all three map types together so data element can be traced from its system to its table on the transactional system to its place in data warehouse and data marts.
- Kirkwood will provide all data definitions for all above mentioned, definitions of fields and definitions of valid responses per field.

Data Request Process:

Requests for new or modifications to reports or data will follow the standard project request process. The request will include pertinent details outlined on the benefits of creating the information for decision-making purposes and alignment with Kirkwood's strategic goals. Requests will be voted on by a steering committee, which will assign a priority rank. Work will be performed in order of the priority ranking. Exceptions will be made for compliance, maintenance or executive requests.

Transactional Data vs. Informational Data:

Following proper informational standards and best practice, Kirkwood will not support or allow reporting or research to be performed against the transactional data stores. Information should be replicated or ETL'd to a data warehouse or data mart for reporting or research purposes. The only exception will be reserved for Information Technologies professionals performing comparisons during testing or troubleshooting.

Data Integrity, Validation and Correction:

Data integrity is important to Kirkwood and the ability of the College to make accurate and informed decisions and deliver compliance information accurately and efficiently. To those ends Kirkwood will address typical ways to mitigate data integrity errors: Training, Standard Definitions, Audits, and Proactive Systematic Data Validation Techniques.

- Training will be produced and maintained to meet changing requirements. Training will be required for all users of information systems, standard methodologies will be used for data entry, data retrieval and data interpretation.
- Standard definitions will be created and maintained, all information users will be trained on these standard definitions and a definitions dictionary will be created and maintained for ongoing reference.
- Audits will be created and maintained to identify data entering the systems that does not meet standard definitions or training methodologies. These audits will be made available to functional managers with the expectation that they will use them for coaching of the individuals responsible for creating the errors or to examine processes that may be creating the issues. Audits will also be made available to the Information Excellence Operations Team in order to check on the overall health of the information system and provide another level of oversight.
- Proactive Systematic Data Validation will be created to help transactional users enter the correct information. Dropdowns, limited lists, auto fill, data lookups and other features of data validation will be added to transactional fields that are high frequency and high error.

New System Implementations:

New system implementations should be integrated into Kirkwood's existing information structure in a well-organized and thoughtful manner to deliver visibility and tight alignment with existing data

resources. All new system implementations will go through a rigorous informational assessment prior to product selection. This assessment begin with the informational end in mind; in other words, what data elements does Kirkwood want from this new system to help inform decisions and track progress. An appropriate team will be selected to perform this assessment based on functional knowledge, technical knowledge and informational knowledge. This team will present their findings and recommendations to the Information Excellence Operations Team and the Informational Excellence Governance Board and follow the process for governance decisions.

Broad Based Change to Informational Structure or Business Rules/Process:

All broad based changes to informational structure, business rules, business processes or reporting requirements need to be done with transparency, visibility and full understanding of all key informational stakeholders. Furthermore these changes need to be socially processed, tested, communicated and trained prior to implementation. All changes need to go through this rigorous process to ensure understanding and a quality change result. It will be very important to understand what proposed change will bring about in terms of information availability. To this end all changes must pass through the Information Excellence Operations Team and the Information Excellence Governance Board prior to implementation. Key understandings such as if Kirkwood gains or loses information availability and ramifications of these gains or losses need to be clearly understood.

Data Collection and Maintenance:

Primary Department Information Stewards are responsible for complete, accurate, valid, and timely data collection. The Information Excellence Operational Team will assist in this effort by creating policies, procedures, training, communication and audits to assist with data collection. As changes are required the Information Excellence Operational Team will update documents and functions. Data handling steps that do not add value will be eliminated.

Data Access:

Access to legally restricted or limited access data by Kirkwood employees not otherwise permitted to do so or employees of other organizations requires a formal request first be made to the appropriate Cabinet member and then to the Information Excellence Governance Board.

Responsibilities of Users:

Information stewards will be required to review, understand and comply with all policies concerning use of Kirkwood information and complete all associated training. Kirkwood information resources are only to be used to conduct Kirkwood business. Kirkwood expressly forbids the disclosure of unpublished administrative data or the distribution of such data in any medium, except as required by an employee's job responsibilities. In this context, disclosure means giving the data to persons not previously authorized to have access to it. Kirkwood also forbids the access or use of any administrative data for one's own personal gain or profit, for the personal gain or profit of others, or to satisfy personal curiosity.

Users will respect the confidentiality and privacy of individuals whose records they access, observe any ethical restrictions that apply to data to which they have access, and abide by applicable laws and policies with respect to access, use or disclosure of information. All data users having access to legally restricted or limited access data will formally acknowledge (by signed statement or e-acknowledgement)

their understanding of the level of access provided and their responsibility to maintain the confidentiality of data they access. Each data user will be responsible for the consequences of any misuse.

Users will comply with all reasonable protection and control procedures for administrative data to which they have been granted access.

Functional Summary

The following table highlights the functions performed by each of the above roles:

Function	Exec Dirs, TS	Staff, TS	OTAC	TS Leadership	Primary Department Information Stewards	General Information Stewards	IE/IR
Approve Data Policies				X			
Develop Data Policies	X		X				
Develop Data Standards			X				
Develop Training			X				
Develop Business Processes			X				
Develop Business Rules			X				
Develop Audits			X				
Develop Data Structures	X	X					
Governance of Data Policies				X			
Review Enterprise System Changes	X	X	X	X			
Review New Enterprise Systems	X	X	X	X			
Maintain data policies	X		X				
Maintain data standards			X				
Maintain Training			X				
Maintain Business Processes			X				
Maintain Business Rules			X				
Maintain Audits			X				
Maintain data structures	X	X					
Approval for data structures	X		X	X			
Determine appropriate information tools	X	X	X				

Ensure systems and databases reflect policies and standards	X	X	X				X
Monitor data for accuracy and address when needed			X		X		
Comply with all policies and procedures	X	X	X	X	X	X	X
Complete all training requirements	X	X	X	X	X	X	X
Provide Primary Department Information Stewards and IT Staff with clear and timely feedback			X		X	X	
Review and maintain compliance with Federal and State Regulations and Rules		X	X				X

Third Party Vendor Contracts and Informational Requests:

Requesters of data from Kirkwood Community College shall follow the third party information request policy.

References

Definitions

Term	Definition
Term 1	
Term 2	
Term 3	
Term 4	

Revision Log

Version Number	Date Approved	Approved by	Brief Description of Change
	D/M/YYYY	Name, Title, Department	

		Cabinet	Procedure Template D/M/YYYY