1. Purpose
Villanova University desires to facilitate development and growth of the institution’s mobile technology environment while also encouraging innovation in this realm when such innovation aligns with the business, strategy and brand of the University. The campus community reasonably expects that mobile products published under the Villanova banner and owned by the University, whether developed by the University’s Information Technology Department (UNIT) or by students or vendors with UNIT’s oversight, will have a utility and value in maintaining the University’s reputation as an educational leader.

UNIT and the Offices of General Counsel and University Communication have melded these concurrent objectives—learning opportunities and reputation management—into a policy for mobile application development.

2. Policy Statement
Any campus unit wishing to develop a mobile application or mobile website under the auspices of the University and branded as a Villanova product must first seek formal approval to proceed by completing
the Villanova University Mobile App/Mobile Website Request Form. The completed form will be reviewed by Villanova’s cross-disciplinary Mobile Application Review Committee (MARC).

Villanova’s Mobile Application Review Committee consists of representatives from the following groups:

- University Communication
- UNIT – Application Development team
- Computer Sciences, College of Liberal Arts and Sciences
- ICE (Innovation, Creativity, & Entrepreneurship) Institute
- General Counsel

MARC approval must be granted in writing before any mobile application or mobile website within the scope of this policy may be published or released.

2.1 Types of Mobile Presence
Mobile presence enables access to services on mobile devices such as phones and tablets. Providing such access is of increasing import as mobile device usage rises. The existence and quality of mobile experiences significantly impacts user experience and perception of the University. For the purposes of this document, we will distinguish between three types of mobile presence: mobile website, mobile web apps, and native mobile apps.

Determining which mobile presence is most suited to University needs depends upon a number of factors, including target audiences, available budget, intended purpose and required features. In general, the simplest solution capable of accomplishing a project’s goal is preferred.

2.2 Websites
Websites exist primarily to convey information, and the pages downloaded to and run in a client’s Internet browser is very simple. For instance, Wikipedia.org is designed to serve educational articles. Pages feature static content with virtually no dynamic functionality. Often these pages rely on one or more sophisticated back-end servers. In order to be “Mobile”, websites must provide a good experience for users on mobile devices through appropriate use of HTML, CSS, and JavaScript. These pages can be created within Villanova’s Adobe Experience Management (AEM) system, and can be included as modules within the Nova Now app if they would contribute significant value to the user’s experience. Websites are the simplest solution, and are preferred whenever little or no dynamic functionality is necessary.

2.3 Web Applications
Web applications are websites which feature dynamic, interactive content and functionality. For instance, Google Maps accepts information about a user’s departure point and destination in order to generate and guide a user through a route. This requires fairly complex data storage and processing on both the server and client (web browser). These solutions offer dynamic functionality across most modern, standards-compliant web browsers. Web applications are best when dynamic or complex logic is required to meet users’ needs. These solutions may be developed within Villanova’s AEM platform, and may be included as a module within the Nova Now app.

2.4 Native Applications
Native mobile applications are designed to run on specific mobile operating systems (e.g. iOS or Android). They are published to and installed from app stores. These can offer access to more device features, are more efficient, can reliably cache information, and provide app marketplace exposure, but
are usually more difficult to develop as specific knowledge and code is required for each targeted platform. Thus, native apps are required whenever performance is paramount in performing some specialized task (as for business applications or games). Hybrid apps consist of a web app embedded in a native app wrapper, providing most benefits of both solutions. Hybrid apps are best whenever app store exposure and/or device features are necessary and performance is not paramount.

3. Scope
This policy applies to all campus departments, colleges, business units or individuals (including students/alumni) who wish to develop or publish a mobile application or mobile website under the aegis of the University and branded as a Villanova product.

The latest version of this document can be found on the Villanova University website at: http://www1.villanova.edu/villanova/unit/about/policies/7230_secure.html

Complete listings of all University IT Policies can be found here: http://www1.villanova.edu/villanova/unit/about/policies.html

4. Procedures
4.1 Criteria for Acceptable Proposals
Requestors may propose two types of solutions:

1. A new mobile app, or
2. New functionality for an existing mobile app or environment.

Solutions take one of the following forms:

1. An Idea: A suggestion to solve a particular problem, possibly including a general plan or guidelines.
2. A Development Proposal: A proposal that a specific entity develop a particular solution.
3. A Purchase/Implementation Proposal: A proposal to procure and adopt an available solution.

Each proposal should indicate who will develop and who will maintain the application. Generally, this may be UNIT, a University member(s), and/or a third party vendor(s).

Each proposal requires a University sponsor.

Please see the Mobile App/Mobile Website Request Form for a complete list of required information.

4.2 Request Process
The typical submission lifecycle is as follows:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Average Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request Form Submission</td>
<td>1 week</td>
</tr>
<tr>
<td>Initial MARC review</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Development / Implementation</td>
<td>Varies</td>
</tr>
<tr>
<td>Testing</td>
<td>4 weeks</td>
</tr>
</tbody>
</table>
The requestor initiates the process by filling out the Mobile App/Mobile Website Request Form. MARC will review the request and initiate particular reviews as necessary:

MARC will render a decision within 30 business days of receipt of the request form.

If contract review is required, the requestor must agree to terms and conditions set forth by Villanova University General Counsel.

Development of any solution should not begin until MARC has approved the request.

Once development and implementation are complete, MARC will review the solution and either:

1. Approve the solution for publication and distribution as an official VU solution
2. Request revisions
3. Deny approval

UNIT will coordinate the distribution of approved solutions.

4.3 UNIT Offerings for Developers
Solutions may utilize the following UNIT resources:

- Villanova’s Adobe Experience Management environment
- UNIT servers
- Git repository

More information can be provided upon request.
4.4 Technical Requirements for Mobile Solutions
Technical requirements and documentation will be made available to parties responsible for development and/or maintenance of mobile solutions. These parties are expected to comply with all stipulations. One or more of the following may apply:

- App store developer guidelines
- Americans with Disabilities Act regulations
- VU Android / iOS development guidelines
- VU AEM development guidelines
- VU Security Checklist
- VU Change Management
- VU Branding
- VU Program Management policy
- VU Intellectual Property rights and licensing terms
- VU Google Analytics requirements

5. Approval and Revisions
This policy was in existence on or before 4/5/2012.
Version 1.0 approved April 18, 2016 by VP&CIO Stephen Fugale and the UCIT Committee.