UBC FACULTY OF MEDICINE
MD UNDERGRADUATE PROGRAM

# FINAL REPORT

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| **Prepared for:** | The Implementation Task Force for Curriculum Renewal |
| **Prepared by:** | The Technology Enabled Learning Working Group |
| **Date:** | 01 June 2012 |

## 1.  Overview

The Working Group (WG) on Technology Enabled Learning (TEL) is charged with providing strategic direction for educational technology to support the Faculty of Medicine's (FoM) MD Undergraduate renewed curriculum.

The purpose of this document is to:

1.  Make enabling recommendations and determine principles for an approach to implementing educational technology in support of the new curriculum.
2.  Identify aspects of the new curriculum that can be supported by educational technology and suggest next steps.

## 3.  Working Group Membership

The WG on TEL membership includes:

**David Lampron (Chair)**, Director, Technology Enabled Learning, MedIT
**Marcelina Piotrowski (Co-Chair)**, Educational Analyst, Technology Enabled Learning, MedIT
**Rita Chiu**, Student, UBC MD Undergraduate Program
**Lawrence Chow**, Student, UBC MD Undergraduate Program
**Susan Edwards**, Clinical Instructor, DPAS Tutor, Faculty Development Leader, Island Medical Program
**Jason Ford**, Assistant Professor, Department of Pathology and Laboratory Medicine
**Andrea Gingerich**, Research Associate, Northern Medical Program
**Twylla Hamelin**, Curriculum & Assessment Manager Years III/IV, Northern Medical Program
**Karen Joughin**, Interim Associate Dean, MD Undergraduate Curriculum and VFMP, MD Undergraduate Program
**Nima Kashani**, Student, UBC MD Undergraduate Program
**Leo Lai**, Student, UBC MD Undergraduate Program
**Ryan Lieph**, Student, UBC MD Undergraduate Program
**Barry Mason**, Senior Instructor, Department of Cellular and Physiological Sciences
**Kristina McDavid**, MD Undergraduate Liaison Librarian, UBC Library
**Erik Swartz**, Clinical Associate Professor, Division of General Paediatrics
**Jagdeep Ubhi**, Clinical Assistant Professor, Department of Obstetrics and Gynaecology
**Peter Weerasinghe**, CHES Fellow, General Internal Medicine
**Michael Whitfield,** Associate Director, Community Service Learning Program (DPAS)
**Anne Worthington**, Evaluation Studies Specialist, Evaluation Studies Unit

## 4. Recommendations

Upon review of the curriculum design (draft released by the Curriculum Design Working Group in March 2012), the TEL WG makes the following enabling and investment recommendations:

### a. Enabling Recommendations

The enabling recommendations appear in a four-step, sequential order. All four principles and enabling recommendations are integral to the successful implementation of the new curriculum. For each technology initiative in support of the new curriculum, follow a four-step approach that articulates:

1. **Educational goals**

   Technology initiatives in the new curriculum should support pedagogical goals; Ensure educational technology changes are guided by an educational needs assessment and an associated evaluation plan.

2. **Governance clarity**

   Define clear lines of governance and accountability for curriculum renewal projects and ongoing educational technology decisions. As per recommendation 3: 'Decision-making process' in the Report of the Working Group on Curriculum Governance, develop a decision-making tree to show where responsibilities lie and who is accountable for what.

3. **Processes, resources and priorities**

   Technology is the great magnifier; it can reflect good governance and administration, but it can also reflect organizational inefficiencies. Focus on ensuring that a refined operational process sustainably supports all educational activities. Prioritize all new technology requests to support the renewed curriculum and decide what current technologies should be continued or stopped. Technology endeavors require resources and capacity to take on new initiatives will be limited.

4. **Technology**

   Select technology only once the governance and the educational and resource requirements have been determined. When making investment decisions ensure that system-wide aspects have been considered; select and implement educational technologies that in addition to meeting the needs of the MD UG Program, also provide the greatest value across the continuum of medical education and the health professions in the Faculty of Medicine.

### b. Investment Recommendations

Investment recommendations are organized according to the features of the new curriculum design. They are based on the assumptions that they will be preceded by the definition of educational goals, governance structures and a review of required administrative processes and resources.

Investment recommendations should be prioritized according the greatest educational and organizational need.

| | New Curriculum Design Feature | Suggested technology investment recommendation | Next Steps for Curriculum Renewal |
|---|---|---|---|
| 1 | **Spiral, case-based curriculum**: <br><br> Basic, complicated, complex clusters. Early clinical experiences. | **1. Online resources to support case-based curriculum:** <br><br> o Virtual patients to support symptom presentations and health problems cases. <br> o Online modules to support asynchronous basic science teaching <br><br><br> **2. MEDICOL project to meaningfully reorganize online resources to reflect the new curriculum** <br><br><br> **3. Re-engineered processes associated with scheduling (lectures, labs, clinical placements, etc)** | 1. Online Resources: Virtual patients and online modules <br> a. Identify early on which cases require virtual patients and online modules. <br> b. Select a faculty lead that will be responsible for virtual patient and online module consistency and quality. <br> c. Establish common principles for virtual patient and online module design (duration, levels of complexity, use of media, common elements ex. drug lists). <br> d. Map VPs and online modules to increasing spiral complexity in the curriculum. <br> e. Prioritize which virtual patients and online modules are most needed for 2013/2014 <br> f. Determine leaders/authors for each VP and online module who will commit to work with TEL to develop the online resources <br> (Note: virtual patients and online modules take four to six months to develop). <br><br> 2. Update MEDICOL <br> a. Determine meaningful organization for finding online content and online activities (modules, quizzes, virtual patients) for basic, complicated and complex clusters. <br> b. Initiative a project to reorganize MEDICOL to accommodate new curriculum. <br><br> 3. Re-engineer processes associated with scheduling: <br> a. Launch an administrative working group to determine scheduling needs and processes in the new curriculum. |

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| 2 | **Longitudinal Assigned Patients**: students are matched with patients in their academic learning community | 1. **Patient match database to assign and track student placement with patients** | 1. Determine faculty and administrative leadership for overseeing the implementation of longitudinal patient matching and tracking.<br>2. Determine processes for identifying, matching and tracking patients and students<br>3. Determine technology needs. |
| 3 | **White spaces:**<br><br>Students will have the flexibility to pursue scholarly or community projects or to remediate. | 1. **Online support for elective/scholarly or community project activities** | 1. Determine white space activities and administrative processes that will support them.<br>2. Conduct a needs analysis for educational technology needs to support white space activities. |
| 4 | **Academic Learning Communities**: geographically based communities of learners and teachers.  Students' clinical experiences, professional identity development and small group learning will be facilitated in these communities. | 1. **Online collaboration spaces to support ALCs** (social network functionality/forum/desk top or video-conferencing for small groups) | 1. Determine governance model for Academic Learning Communities<br>2. Conduct a needs assessment of curricular and non-curricular activities that require technology. |
| 5 | **Assessment**:<br><br>Students will have frequent opportunities for self-assessment, some summative examinations and will use ePortfolios. | 1. **ePortfolios**<br>2. **Exam and quiz production and delivery software** | 1. Establish clear governance for assessment across the MD UG<br>2. Create a comprehensive assessment operational plan (OSCE, e-Portfolios, quizzes, NMBEs, formative & summative exams, etc).<br>3. Prioritize the need for ePortfolios against other assessment technology needs (such as software the improve administration and delivery of exams and quizzes)<br>4. Conduct a needs assessment for the selected technology.<br>5. Determine administrative support processes for implementing ePortfolios. |