



CONESTOGA

Connect Life and Learning

**Conestoga College Institute of Technology and Advanced Learning**  
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**Final Status Report**  
**ONCAT Project 2015-15**  
**Pathways from Conestoga's Health Office Administration**  
**Diploma to Conestoga's Bachelor of Applied Health**  
**Information Science**  
**March 15, 2016**

## **Executive Summary:**

Conestoga College ITAL (Conestoga) has worked to establish an educational pathway between the Health Office Administration Diploma (HOA) to the Bachelor of Applied Health Information Science (Honours) (BAHIS).

This project has further supported pathway development relevant to this broader scope of programs and institutions by leveraging processes and best practices learned to support pathway development from Office Administration – Medical (OAM) programs into Conestoga's Bachelor of Applied Health Information Science.

## **Project Overview:**

### **Phase One – Program Mapping and Gap Analysis:**

The HOA program representatives provided relevant program design matrices, learning outcomes, and all course outlines for the HOA program to the BAHIS team. Additionally, program maps demonstrating how the program learning outcomes are met through the individual program curriculum were supplied. Conestoga recognizes that the HOA program has unique program standards, not applied across the Ontario College system. To ensure this project provides transfer benefits across the province, the BAHIS team also compared provincial learning outcomes from OAM, and used the program at Mohawk as an exemplar for the gap analysis. During the analysis, it became evident that the HOA program also meets the Office Administration – Medical (329) provincial program outcomes.

The BAHIS faculty completed a comprehensive gap analysis for both the HOA and OAM pathways into BAHIS (**Appendix A**), and the following recommendations were shared with the HOA team to ensure strong pathways between the programs:

- a) The following bridge course is appropriate for HOA and OAM students, as shown in detail in **Appendix B**:

Course Title	Course Code	Delivery Hours	Credits
Pathway Bridge For BAHIS	HIM 1030	15	1

## Phase Two – Pathway Development:

The program teams recognize the importance of creating accessible pathways of education for students, while maintaining program integrity and providing for student success. Phase Two of the project included the development of a program pathway, including a bridge course, addressing the gaps in knowledge, skills or abilities identified through the gap analysis completed in Stage One (**Appendix A**).

Once the bridge was developed, the minimum GPA and other relevant eligibility standards for students seeking admission via the HOA pathway was determined. Also identified were the courses for which transfer credit will be granted to students entering via the established pathway, as well as the remaining courses to be completed at Conestoga. See **Appendix B** for details regarding bridging curriculum and **Appendix C** for complete pathway details.

Conestoga will utilize the same bridge and pathway parameters for an OAM-BAHIS pathway, based on the similarity between the two gap analyses. The completion and publication of the OAM pathway is outside of the scope of this project, but will be promoted on ontransfer.ca upon finalization.

## Phase Three: Pathway Publication and Final Report

Conestoga's HOA and BAHIS teams have partnered to complete all analysis and conclusions that support the objectives of project 2015-15: Pathways from Conestoga's Health Office Administration Diploma Program to Conestoga's Bachelor of Applied Health Information Science, including the additional development of Medical Office Administration – Medical (329) Diploma Programs to Conestoga's Bachelor of Applied Health Information Science (Honours), including: a curriculum and gap analysis of the pathways (**Appendix A**), a corresponding explanation of bridge curriculum and scheduling for the HOA pathway (**Appendix B**), required pathway documentation (**Appendix C**), and a detailed financial statement (provided in a separate excel sheet, as requested by ONCAT).

Conestoga will post complete HOA-BAHIS pathway details at ontransfer.ca on March 15, 2016. At that time, the Credit Transfer and Registrar Office will be appropriately informed of the new pathway details, per **Appendix C**. Conestoga will engage other Ontario Colleges with OAM programs following the submission of this final report to ONCAT to confirm details and customize pathway eligibility, where necessary.

Conestoga is pleased to have leveraged best practices learned in the development process for the HOA-BAHIS pathway to inform the creation of an Office Administration – Medical to BAHIS pathway. The HOA Program meets the OAM provincial learning outcomes, and the gap analyses are almost identical.

## Best Practices and System-wide Application:

Conestoga found the strategy taken in creating the pathway from HOA into BAHIS to be quite effective. The mapping tool (as provided in **Appendix A**) provided not only clarity through the mapping process, but is easily understood by reviewers not involved in the mapping exercise. Further, as the map provides information on both the program outcomes compared and the courses used to remediate gaps, the documentation can be reviewed for currency and updated with ease.

Conestoga has also used a pathway summary sheet (**Appendix C**) as an internal document to capture key details of the pathway developed. This sheet is adapted from the required fields to post a pathway at

ontransfer.ca. Conestoga believes it to be a best practice to build on the expertise of ONCAT for the communication of this pathway to prospective students, other postsecondary institutions, and internally. The clean table format is also effective for Conestoga's central administration to post and store pathways within the ontransfer.ca and internal repositories, and serves as a strong snapshot for regulatory bodies, where required.

Conestoga's BAHIS team had previously developed four pathways into the BAHIS Program (HIM, CP, CPA, and SET). The team has been able to refine its process and supporting documentation for pathway development and apply it to the HOA and OAM pathway development to improve accuracy and efficiency. Additionally, the BAHIS team have a high degree of familiarity with their own curriculum and mapping courses to their program outcomes. This familiarity comes from previous pathway development and a recent successful Canadian Health Information Management Association accreditation process. This knowledge and experience improves the team's efficiency in mapping and gap analyses. Finally, working with a program team (HOA) that is on the same campus as the BAHIS team improved the efficiency of the process.

Given the effectiveness of the process outlined above, Conestoga was able to go beyond a viability analysis related to an Office Administration – Medical to BAHIS pathway, to conduct the full gap analysis and pathway development process using the OAM program standards. The mapping to program standards ensures easy application to all compliant OAM programs across the Ontario College system, thus efficiently providing more benefits to the system as a whole.

## Appendix A: Gap Analysis for HOA and OAM

The following is a curriculum and gap analysis of both HOA to the BAHIS and OAM to the BAHIS based on a learning outcomes framework.

### Method:

Learning outcomes from Conestoga's HOA program were compared against the learning outcomes from the BAHIS degree. A gap analysis was done to identify HOA outcomes that achieved outcomes defined for BAHIS. For each BAHIS program outcome, gaps and their remediation were assessed and documented. Please see the table **A.1. Gap Analysis: Health Office Administration Program Outcomes**, below.

When the gap analysis for the HOA to the BAHIS program was completed, the team subsequently followed the same process to compare provincial learning outcomes from OAM to the BAHIS Program. The team used Mohawk College's OAM program for a more in depth review of courses. For each BAHIS program outcome, gaps and their remediation were assessed and documented. Please see the table **A.2 Gap Analysis: Office Administration – Medical (329) Program Outcomes**, below.

### Findings:

Many of the competencies developed in both the HOA and OAM programs address the competencies of the BAHIS program. There are opportunities to exempt HOA and OAM students from courses of a similar nature.

### Recommendations:

HOA and OAM students require technical courses from the BAHIS degree such as clinical/information systems, databases, data, programming, and informatics to complete established degree requirements.

### Conclusions:

A pathway for HOA and OAM students is feasible based on the capabilities of HOA and OAM program graduates. Much of the pathway design would focus on the technical curriculum in the BAHIS degree.

### A.1: GAP ANALYSIS: Health Office Administration Program Outcomes

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Conestoga College's Health Office Administration Diploma</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
<p>1. Apply theory and practice of managing data, information, and knowledge using appropriate information and communication technologies for the purpose of improving health care processes and decision-making to achieve better health of individuals, populations, communities, and society.</p>	<ul style="list-style-type: none"> <li>• Apply specific administrative skills required to work in the medical, dental, and specialized health office environments.</li> <li>• Apply various approaches for managing health records in a variety of health care settings.</li> <li>• Demonstrate computer skills appropriate for non-medical and medical environments.</li> </ul>	<p>The gap here is quite significant. While HOA/OAM graduates will enter with strong knowledge and skills around health processes and environments; collecting, managing and utilizing data &amp; information in healthcare settings; supporting and implementing knowledge management and decision support in health care contexts, they will be lacking considerable knowledge and skills pertaining to information and communication technologies.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Information Systems I &amp; II", "Clinical Systems I", "Database Concepts II &amp; III" &amp; "Solving Problems in HI" courses <b>Years 3 &amp; 4:</b> Take full "Health Informatics II &amp; III", "Clinical Systems II", "Systems Integration", "HC Quality Improvement" &amp; "Advanced HIM" courses</p>
<p>2. Manage healthcare information systems, including planning, analysis, design, development, implementation, maintenance, and evaluation.</p>	<ul style="list-style-type: none"> <li>• Apply various approaches for managing health records in a variety of health care settings.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered. An environmental scan of diploma courses indicates in most cases only 1 or 2 Technology-centric courses, and if there are technical courses, they typically have no coverage of the analysis, design, development &amp; implementation phases</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Clinical Systems II" and "Systems Integration" courses</p>
<p>3. Integrate healthcare information systems within and among various healthcare organizations.</p>	<ul style="list-style-type: none"> <li>• Apply various approaches for managing health records in a variety of health care settings.</li> <li>• Demonstrate computer skills appropriate for non-medical and medical environments.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Clinical Systems II" and "Systems Integration" courses</p>

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Conestoga College's Health Office Administration Diploma</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
<p>4. Assess, monitor and ensure the efficient operation and evolution of applications, core computer functions and networks in a variety of healthcare settings.</p>	<ul style="list-style-type: none"> <li>• Demonstrate computer skills appropriate for non-medical and medical environments.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered. A review of HOA diploma courses indicates in most cases only 1 or 2 courses with a technology focus.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts I, II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Systems Analysis &amp; BPM", "Clinical Systems II" and "Systems Integration", "IT Procurement" courses</p>
<p>5. Analyze, evaluate and apply best practices in health informatics and health information management in order to support client-centered, safe, high quality health care.</p>	<ul style="list-style-type: none"> <li>• Demonstrate professional behaviour.</li> <li>• Apply the principles of health care terminology in both verbal and written form.</li> <li>• Demonstrate effective practice management skills in a variety of health office settings</li> </ul>	<p>There is a gap in informatics theory, however, the gap is more in terms of depth in coverage. This will be covered through additional courses and a bridge course.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Solving Problems in HI" course <b>Years 3 &amp; 4:</b> Take full "Health Informatics II &amp; III" &amp; "Advanced HIM" courses</p>
<p>6. Integrate knowledge of the healthcare delivery system into functionality of health information systems and information management in health care.</p>	<ul style="list-style-type: none"> <li>• Apply the integrated health and business knowledge and skills necessary to work in a variety of health settings</li> <li>• Demonstrate effective practice management skills in a variety of health office settings</li> <li>• Demonstrate the administrative and communication skills necessary to manage a patient care unit in the hospital setting.</li> </ul>	<p>No gap - outcome is fully accounted for</p>	<p>No remediation required</p>

<b><i>Conestoga Bachelor of Applied Health Information Science</i></b>	<b><i>Conestoga College's Health Office Administration Diploma</i></b>	<b><i>Gap in Knowledge and Skills</i></b>	<b><i>Remediation of Gap</i></b>
7. Apply biomedical and health concepts to the development of healthcare information systems and information management in health care.	<ul style="list-style-type: none"> <li>• Apply health teaching concepts in a variety of settings</li> <li>• Apply the principles of health care terminology in both verbal and written form</li> </ul>	The gap here is minimal.	<b>Years 3 &amp; 4:</b> One module from "Advanced HIM" course applied through the Bridge Course.
8. Apply the concepts of organizational behavior, culture, human relations, leadership, and change management to improve development, adoption, and management of health informatics solutions in health care.	<ul style="list-style-type: none"> <li>• Demonstrate effective practice management skills in a variety of health office settings.</li> <li>• Demonstrate the administrative and communication skills necessary to manage a patient care unit in the hospital setting.</li> <li>• Communicate effectively with patients, their families, colleagues, the public and other members of the health care team.</li> </ul>	This area is covered very well. The gap is more around more advanced tools and techniques in support of change management.	<b>Years 3 &amp; 4:</b> Take full "Mgmt & Org Behaviour" and "Change Management" courses
9. Communicate effectively, both verbally and in writing, with members of an inter-professional healthcare team.	<ul style="list-style-type: none"> <li>• Communicate effectively with patients, their families, colleagues, the public and other members of the health care team.</li> </ul>	No gap - outcome is fully accounted for	No remediation required
10. Apply the principles and skills of project management to health informatics and health information management initiatives.	<ul style="list-style-type: none"> <li>• Demonstrate effective practice management skills in a variety of health office settings.</li> </ul>	The gap here is significant	<b>Years 3 &amp; 4:</b> Take full "Project Mgmt" course

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Conestoga College's Health Office Administration Diploma</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
11. Adhere to professional, ethical and legal codes and standards, including ensuring privacy and confidentiality of health information.	<ul style="list-style-type: none"> <li>Demonstrate effective practice management skills in a variety of health office settings.</li> </ul>	The gap here is in terms of depth and application.	<b>Years 3 &amp; 4:</b> Take full "Security, Privacy, and Confidentiality" course
12. Create and deliver educational material to healthcare professionals in use of information technology to support and improve health care processes.	<ul style="list-style-type: none"> <li>Apply health teaching concepts in a variety of settings.</li> <li>Demonstrate professional behaviour.</li> </ul>	The gap here is minimal, and will be covered through application in a number of BAHIS courses.	<b>Years 1 &amp; 2:</b> Presentations in courses such as HI I and Solving Problems in HI help develop these skills
13. Conduct and evaluate research using theory and practice of health informatics and health information management to contribute to evidence based practice in health care.	No outcomes apply here.	The gap here is complete - i.e. this is an area not well covered in the HOA diploma program so pathway students will have to complete all the degree material	<b>Years 1 &amp; 2:</b> Take full "Introduction to Data Analysis" course <b>Years 3 &amp; 4:</b> Take full "Research Methods & Statistics", "Epi, Pop'n & Public Health" & "Decision Support in HC" courses
14. Develop plans for lifelong learning and professional development.	No outcomes apply here.	Gap here, if it exists at all, is small and can be closed through a variety of means during degree completion.	Can be acquired partially through extra-curricular activities AHIS students commonly engage in through memberships in groups as NIHI's NSF and COACH. It also comes through an attitude fostered in remaining completion courses. <b>Years 3 &amp; 4:</b> Take full "Adult Training & Education" course
15. Apply health informatics and health information management knowledge and skills during work integrated learning opportunities in health care related organizations.	<ul style="list-style-type: none"> <li>Work effectively both independently and as a member of a health care team</li> </ul>	HOA students will have some experience through their "Field Placement." However, there will be a gap here, especially in terms of the experiences.	Acquired throughout the work-integrated learning opportunities that arise in the remaining courses in the degree completion, as well as through Co-op experience.



A.2. GAP ANALYSIS: Office Administration – Medical (329) Program Outcomes

<i>Conestoga Bachelor of Applied Health Information Science</i>	<i>Office Administration - Medical Diploma (329)</i>	<i>Gap in Knowledge and Skills</i>	<i>Remediation of Gap</i>
<p>1. Apply theory and practice of managing data, information, and knowledge using appropriate information and communication technologies for the purpose of improving health care processes and decision-making to achieve better health of individuals, populations, communities, and society.</p>	<ul style="list-style-type: none"> <li>• Apply scheduling, task coordination, and organizational skills to facilitate the completion of tasks and to meet deadlines in the medical environment.</li> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>• Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> </ul>	<p>The gap here is quite significant. While OAM graduates will enter with strong knowledge and skills around health processes and environments; collecting, managing and utilizing data &amp; information in healthcare settings; supporting and implementing knowledge management and decision support in health care contexts, they will be lacking considerable knowledge and skills pertaining to information and communication technologies.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Information Systems I &amp; II", "Clinical Systems I", "Database Concepts II &amp; III" &amp; "Solving Problems in HI" courses <b>Years 3 &amp; 4:</b> Take full "Health Informatics II &amp; III", "Clinical Systems II", "Systems Integration", "HC Quality Improvement" &amp; "Advanced HIM" courses</p>
<p>2. Manage healthcare information systems, including planning, analysis, design, development, implementation, maintenance, and evaluation.</p>	<ul style="list-style-type: none"> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered. An environmental scan of diploma courses indicates in most cases only 1 or 2 Technology-centric courses, and if there are technical courses, they typically have no coverage of the analysis, design, development &amp; implementation phases</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Clinical Systems II" and "Systems Integration" courses</p>

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Office Administration - Medical Diploma (329)</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
<p>3. Integrate healthcare information systems within and among various healthcare organizations.</p>	<ul style="list-style-type: none"> <li>Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>Provide technical support and training related to computer software to others in the medical environment as required.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Clinical Systems II" and "Systems Integration" courses</p>
<p>4. Assess, monitor and ensure the efficient operation and evolution of applications, core computer functions and networks in a variety of healthcare settings</p>	<ul style="list-style-type: none"> <li>Provide technical support and training related to computer software to others in the medical environment as required.</li> <li>Use the Internet and its tools in a medical environment to enhance communication and business opportunities.</li> </ul>	<p>The gap here is very significant, both in terms of depth and new material covered. A review of OAM diploma courses indicates in most cases only 1 or 2 courses with a technology focus.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Clinical Systems I", "Information Systems I &amp; II", "Programming Concepts I &amp; II", "Database Concepts I, II &amp; III" courses <b>Years 3 &amp; 4:</b> Take full "Web Applications Development I &amp; II", "Systems Analysis &amp; BPM", "Clinical Systems II" and "Systems Integration", "IT Procurement" courses</p>
<p>5. Analyze, evaluate and apply best practices in health informatics and health information management in order to support client-centered, safe, high quality health care.</p>	<ul style="list-style-type: none"> <li>Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> <li>Use effective interpersonal skills in the workplace to assist the completion of</li> </ul>	<p>There is a gap in informatics theory, however, the gap is more in terms of depth in coverage. This will be covered through additional courses and a bridge course.</p>	<p><b>Years 1 &amp; 2:</b> Take full "Solving Problems in HI" course <b>Years 3 &amp; 4:</b> Take full "Health Informatics II &amp; III" &amp; "Advanced HIM" courses</p>

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Office Administration - Medical Diploma (329)</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
	individual and team tasks and to promote the image of the organization.		
6. Integrate knowledge of the healthcare delivery system into functionality of health information systems and information management in health care.	<ul style="list-style-type: none"> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>• Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> <li>• Use the Internet and its tools in a medical environment to enhance communication and business opportunities.</li> </ul>	No gap - outcome is fully accounted for	No remediation required
7. Apply biomedical and health concepts to the development of healthcare information systems and information management in health care.	<ul style="list-style-type: none"> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>• Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> </ul> Produce accurate medical	The gap here is minimal.	<b>Years 3 &amp; 4:</b> One module from "Advanced HIM" course applied through the Bridge Course.

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Office Administration - Medical Diploma (329)</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
	<p>correspondence and reports by a specified deadline using available computer technology as well as by applying recording, editing, and language skills.</p>		
<p>8. Apply the concepts of organizational behavior, culture, human relations, leadership, and change management to improve development, adoption, and management of health informatics solutions in health care.</p>	<ul style="list-style-type: none"> <li>• Apply scheduling, task coordination, and organizational skills to facilitate the completion of tasks and to meet deadlines in the medical environment.</li> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>• Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> <li>• Use effective interpersonal skills in the workplace to assist the completion of individual and team tasks and to promote the image of the organization.</li> </ul>	<p>This area is covered very well. The gap is more around more advanced tools and techniques in support of change management.</p>	<p><b>Years 3 &amp; 4:</b> Take full "Mgmt &amp; Org Behaviour" and "Change Management" courses</p>

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Office Administration - Medical Diploma (329)</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
<p>9. Communicate effectively, both verbally and in writing, with members of an inter-professional healthcare team.</p>	<ul style="list-style-type: none"> <li>• Produce accurate medical correspondence and reports by a specified deadline using available computer technology as well as by applying recording, editing, and language skills.</li> <li>• Use effective interpersonal skills in the workplace to assist the completion of individual and team tasks and to promote the image of the organization.</li> </ul>	<p>No gap - outcome is fully accounted for</p>	<p>No remediation required</p>
<p>10. Apply the principles and skills of project management to health informatics and health information management initiatives.</p>	<ul style="list-style-type: none"> <li>• Use effective interpersonal skills in the workplace to assist the completion of individual and team tasks and to promote the image of the organization.</li> <li>• Troubleshoot and show initiative in the creation and production of accurate, organized medical documents within a specified time frame.</li> </ul>	<p>The gap here is significant</p>	<p><b>Years 3 &amp; 4:</b> Take full "Project Mgmt" course</p>
<p>11. Adhere to professional, ethical and legal codes and standards, including ensuring privacy and confidentiality of health information.</p>	<ul style="list-style-type: none"> <li>• Establish and maintain data management systems to organize electronic and paper records for the medical environment.</li> <li>• Coordinate the organizing, processing, and responding to electronic and paper communications to facilitate the flow of information in the medical environment.</li> </ul>	<p>The gap here is in terms of depth and application.</p>	<p><b>Years 3 &amp; 4:</b> Take full "Security, Privacy, and Confidentiality" course</p>

<b>Conestoga Bachelor of Applied Health Information Science</b>	<b>Office Administration - Medical Diploma (329)</b>	<b>Gap in Knowledge and Skills</b>	<b>Remediation of Gap</b>
12. Create and deliver educational material to healthcare professionals in use of information technology to support and improve health care processes.	<ul style="list-style-type: none"> <li>• Troubleshoot and show initiative in the creation and production of accurate, organized medical documents within a specified time frame.</li> <li>• Provide technical support and training related to computer software to others in the medical environment as required.</li> </ul>	The gap here is minimal, and will be covered through application in a number of BAHIS courses.	<b>Years 1 &amp; 2:</b> Presentations in courses such as HI I and Solving Problems in HI help develop these skills
13. Conduct and evaluate research using theory and practice of health informatics and health information management to contribute to evidence based practice in health care.	No outcomes apply here.	The gap here is complete - i.e. this is an area not well covered in the OAM diploma program so pathway students will have to complete all the degree material	<b>Years 1 &amp; 2:</b> Take full "Introduction to Data Analysis" course <b>Years 3 &amp; 4:</b> Take full "Research Methods & Statistics", "Epi, Pop'n & Public Health" & "Decision Support in HC" courses
14. Develop plans for lifelong learning and professional development.	No outcomes apply here.	Gap here, if it exists at all, is small and can be closed through a variety of means during degree completion.	Can be acquired partially through extra-curricular activities AHIS students commonly engage in through memberships in groups as NIHI's NSF and COACH. It also comes through an attitude fostered in remaining completion courses. <b>Years 3 &amp; 4:</b> Take full "Adult Training & Education" course
15. Apply health informatics and health information management knowledge and skills during work integrated learning opportunities in health care related organizations.	<ul style="list-style-type: none"> <li>• Demonstrate administrative skills to enhance the effective operation of the workplace.</li> </ul>	OAM students will have some experience through their "Field Placement." However, there will be a gap here, especially in terms of the experiences.	Acquired throughout the work-integrated learning opportunities that arise in the remaining courses in the degree completion, as well as through Co-op experience.

## A.3 Progression through HOA Program

### Pathway to Bachelor of Applied Health Information Science

*Health Office Administration/Office Administration – Medical (329) Diploma*

#### Pathway Sequence (based on 2014 design)

##### HOA\_S1\_Fall

Clinical Systems I  
Database Concepts II  
Health Informatics I  
Information Systems 1  
Introduction to Data Analysis  
Epidemiology, Population & Public Health (OP: HEAL73000)

##### HOA\_S2\_Winter

Database Concepts III  
Health Information Management II  
Information Systems II  
Information Technology Procurement  
Programming Concepts I  
Solving Problems in HI

##### HOA\_S3\_Spring

Co-op Term

##### HOA\_S4\_Fall

Co-op & Career Preparation (no credit)  
Health Informatics II  
Programming Concepts II  
Research Methods & Statistics  
Systems Analysis & Design  
Web Application Development I  
Management & Org Behaviour (OP: BUS71220)

#### Program Requirements and Exemptions

##### Y1/S1/Fall

###### Exempted Courses

Academic communications  
Biomedical Concepts I  
Health Information Management 1

###### Required

Health Informatics I  
Information Systems 1

##### Y1/S2/Winter

###### Exempted Courses

Database Concepts I  
Governance & Structures of HC Systems  
Group Dynamics

###### Required

Information Systems II  
Programming Concepts I  
Solving Problems in HI

##### Y2/S3/Fall

###### Exempted Courses

Biomedical Concepts III  
Professional Communication

###### Required

Clinical Systems I  
Database Concepts II

### HOA\_S5\_Winter

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Clinical Systems II  
Decision Support in Health Care  
Health Information Management III  
Security, Privacy & Confidentiality  
Systems Integration  
Web Application Development II

### HOA\_S6\_Spring

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Breadth Elective  
Change Management  
Conflict Management  
Health Care Quality Improvement  
Health Informatics III  
Visual Design

### exempt

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Academic communications  
Biomedical Concepts III  
Biomedical Concepts I  
Biomedical Concepts III  
Breadth Elective  
Co-op Term  
Database Concepts I  
Governance & Structures of HC Systems  
Group Dynamics  
Health Informatics Field Studies  
Health Information Management 1  
Professional Communication  
Project Management  
User Training & Adult Education

Introduction to Data Analysis  
Programming Concepts II

### Y2/S4/Winter

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#### Exempted Courses

Biomedical Concepts III  
Health Informatics Field Studies  
User Training & Adult Education

#### Required

Database Concepts III  
Health Information Management II

### Y3/S5/Fall

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#### Exempted Courses

Breadth Elective

#### Required

Co-op & Career Preparation (no credit)  
Health Informatics II  
Research Methods & Statistics  
Systems Analysis & Design  
Web Application Development I

### Y3/S6/Winter

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#### Exempted Courses

Breadth Elective

Project Management

#### Required

Information Technology Procurement  
Web Application Development II

#### Required (Alternate)

Management & Org Behaviour (OP: BUS71220)  
Epidemiology, Population & Public Health (OP: HEAL73000)

### Y3/S7/Spring

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#### Required



Co-op Term

**Y4/S10/Spring**

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**Required**

Breadth Elective  
Change Management  
Conflict Management  
Health Care Quality Improvement  
Health Informatics III  
Visual Design

**Y4/S8/Fall**

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**Exempted Courses**

Co-op Term

**Y4/S9/Winter**

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**Exempted Courses**

Breadth Elective

**Required**

Clinical Systems II  
Decision Support in Health Care  
Health Information Management III  
Security, Privacy & Confidentiality  
Systems Integration

## Appendix B: Bridging Documentation

There will be one bridging course available, as listed below.

Course Title	Course Code
HIM 1030	Pathway Bridge For BAHIS

### Course Description

This course serves as a bridge to diploma students who are beginning Conestoga's Bachelor of Applied Health Information Science degree program. The course will enable students to use professional communication skills through the review of the fundamentals of healthcare, information technology and relational databases.

### Course Outcomes

Successful completion of this course will enable the student to:

- Demonstrate professional communication skills, verbally and in writing
- Describe the complexities of information technology and its application to healthcare.
- Describe the Canadian healthcare system as a human system.
- Discuss trends in healthcare and healthcare information technology.
- Identify types of health information systems, and vendors that develop them.
- Design and use a relational database.

## Appendix C: Pathway Documentation

### C.1. HOA – BAHIS Pathway Details

PATHWAY DETAILS	
Title of Pathway: Use Official Program/Credential Titles	From: Health Office Administration To: Bachelor of Applied Health Information Science
Pathway Type: <i>Degree Completion, Certificate to Diploma, etc.</i>	
List other postsecondary institution/s involved in the creation of the pathway:	Conestoga College
Pathway Implementation:	August 2016
Program designs for which this pathway is eligible:	BAHIS 1601 Program Design This pathway is not eligible for program designs predating BAHIS 1601.
Contact Procedure:	Program Website: <a href="http://www.conestogac.on.ca/fulltime/1131C.jsp">http://www.conestogac.on.ca/fulltime/1131C.jsp</a> Program Coordinator: Justin St-Maurice (519) 748-5220 ext: 2593 Jstmaurice@conestogac.on.ca Admissions Officer: Dianne Gross, (519) 748-5220 ext: 3660 dgross@conestogac.on.ca
Eligibility for the Pathway:	Graduates of the 2-year diploma in Health Office Administration with a minimum B average may apply for advanced standing into the Bachelor of Applied Health Science in Health Informatics Management degree. Once they are given an offer of admission by Conestoga, applicants must successfully complete a Bridging Module consisting of 1 week of full-time studies at the end of August before beginning full-time studies in September. The Bridging Module consists of a 45 hour course comprised of lectures and a project. Students enter into a modified year 3.
Applicant must have graduated from the program at the sending institution:	Yes
Minimum program GPA or % required to be eligible for this pathway:	3.0 (B average)
Minimum GPA or % required in specific courses	N/A
Total number of courses in the Conestoga program design, not including Co-op:	46

Co-op opportunities in the Conestoga program design:	Total number of Co-op opportunities in the program: 3 Number of Co-ops required for graduation from the full program: 3 Number of Co-ops to be completed by advanced standing students: 2
Total number of program courses for which credit will be granted:	15 out of 46 courses
Transfer Credits Granted:	Transfer credit will be granted for the first two years of the Bachelor of Applied Health Information Science program with the exception of the following courses: Health Informatics I, Information Systems I, Information Systems II, Programming Concepts I, Solving Problems in HI, Clinical Systems I, Database Concepts II, Introduction to Data Analysis, Programming Concepts II, Database Concepts III, and Health Information Management II. These courses must be completed in addition to the regular year 3 and 4 courses. Year 3 and 4 credits will be granted for 2 Breadth Electives, and Project Management. Credit will be given for 1 of 2 co-op terms.
Total number of program courses that must be completed at Conestoga in order to graduate:	31 out of 46 courses and 1 co-op term (include the bridge course)
Program Completion Requirements:	All required courses listed in <b>Appendix B.</b>
Anticipated time to complete the credential if enrolled full-time:	Number of academic semesters: 5 + 1 co-op Number of years: 2
List of eligible institutions and their programs	Conestoga College: - Health Office Administration