



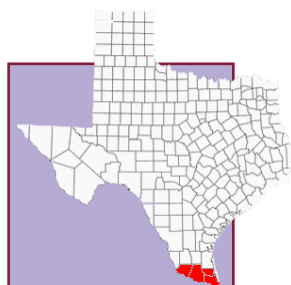
**Health Care Education  
Innovation in the Rio  
Grande Valley, TX**

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## JOB TRAINING IN THE RIO GRANDE VALLEY

On September 17, 2017, a press release from the Texas Workforce Commission reported that the Texas economy had added 5,500 jobs in August<sup>1</sup>, thus reducing the Texas unemployment rate to 4.2 percent, which was lower than the national average for the month. Unfortunately, none of these new jobs were in the Rio Grande Valley. The U.S. Bureau of Labor Statistics confirmed that the unemployment rate in the McAllen–Edinburg area rose from 7.6 percent to 8.0 percent between July and August 2017, and rose from 7.0 percent to 7.3 percent in the Brownsville–Harlingen metro area in the same time period. Collectively, the Rio Grande Valley scored the highest unemployment rate for the month of August in the entire state.<sup>2</sup>



CHCP is committed to providing educational opportunities to students in areas that need specific workforce training. A good example of this is the new CHCP McAllen campus serving

the Rio Grande, Texas, area which includes the cities of Brownsville, Edinburg, Harlingen, McAllen, Mercedes, Mission, Pharr, Rio Grande City, and Weslaco, Texas, and is located, as the name suggests, close to the Rio Grande River.

### READY FOR RAPID GROWTH

2017's discrepancies in unemployment between the Rio Grande Valley and Texas as a whole were not unusual. Between 2007 and 2016, the Rio Grande Valley unemployment rate topped that of all other metro areas in the state.<sup>3</sup> The Rio Grande Valley is comprised of four counties: Cameron, Hidalgo, Starr and Willacy. According to Hoque, McNeil and Granato<sup>4</sup>, the Texas population will continue to grow in ethnic diversity. From 2010 to 2050, the

Hispanic population will increase by 215.6 percent, with 112.9 percent attributed to the Lower Rio Grande Valley.<sup>5</sup> The Texas Demographics Center, in collaboration with the Hobby Center for Public Policy provides a summative description explaining how data projections are calculated<sup>6</sup>. The population forecast was completed using a cohort-component projection technique for data analysis to achieve the projected population growth.

### EDUCATION TO EMPLOYMENT

CHCP is committed to addressing the high unemployment rate in the Rio Grande Valley by providing health care professions education programs for the area. Health care professions education seems a particularly effective strategy to address unemployment in the Rio Grande Valley due to citizens' need for health care and health care employers' corresponding need for certified allied health care professionals. Because the Valley is among the poorest regions in the country and has the highest rates of chronic diseases like diabetes and hypertension, the need for health care providers is high.<sup>7</sup>

As part of an effort to determine specific needs for health professions education in the Rio Grande Valley, CHCP used an academic advisory board of health care experts from this area to help develop programs tailored specifically to their communities. Two of the programs offered on the McAllen CHCP campus seem particularly suited to meet both local employment and health care needs. The first program is the Medical Assistant (MA) certification program; the second is the Medical Coding and Billing (MCB) certification program.

Employment for medical assistants is projected by the U.S. Bureau of Labor Statistics to grow nationally by 29 percent from 2016 to 2026<sup>8</sup>. Aging baby boomers, including the population known as “snowbirds” (those from the northeast United States who winter in the area), will continue to increase the demand for preventive medical services by primary care providers. Most of these providers use MAs to support their practices.

Students in the MA certification program are prepared to work as medical assistants, back office assistant managers, hospital donor unit assistants, back office laboratory assistants, clinical laboratory aides, office assistant managers, blood/plasma laboratory assistants, blood donor unit assistants, or medical assistant office managers. The MA certification program in McAllen began in November 2015, and to date 96 students have graduated from the program. One hundred and three students are currently enrolled.

The second CHCP program that was recommended by the McAllen health professions advisory group is the Medical Coding and Billing (MCB) certification program. This occupation is expected to grow nationally by 13 percent from 2016 to 2026.<sup>9</sup> This growth will be driven by the need to organize and manage coding and billing in the growing health care industry. Graduates of this program may be employed as insurance benefits assistants, insurance examiners’ assistants, hospital admitting clerks, medical records clerks, or insurance claims clerks. CHCP also began the MCB program in McAllen in November 2015; 52 students have graduated from the program and 28 are currently enrolled.

## STRUCTURE OF THE PROGRAMS

CHCP is committed to building programs to accommodate the lives of lower socioeconomic status students who must work while attending school in order to maintain their families. Three ways in which the MA and MCB certification programs embody this aim are through their blended/hybrid delivery, their modular structure, and their externship requirements.

First, as part of a blended/hybrid delivery model used by both programs, students attend class two days per week and work in the online learning management system for the remainder of the week. Attending classroom sessions two days per week, rather than four or more, enables many students to maintain their current jobs and responsibilities. When students are able to keep their jobs secure, they experience increased stability in their lives, and their educational outcomes improve. The second feature of CHCP’s programs designed to accommodate students is their modular structure. The programs are built in “bite-sized” pieces, meaning that students may complete a certificate that can then be transferred fully into an AAS, and ultimately, if the student chooses, to a BS completion program. This allows students to maintain their lives as they work in their originally chosen field while simultaneously pursuing an ongoing opportunity for advancement and increased compensation via additional education. Since many students and their families struggle with basic needs, such as food security, housing, and transportation, their lives can be transformed by CHCP’s structure of programs that build upon one another and blended model of delivery.

Both the MA and MCB programs require students to complete an externship in a health care environment prior to graduation to hone critical skills needed in their first jobs. These externships can be done in appropriate clinical locations close to students’ homes. The opportunity to complete externships close to home is particularly important to CHCP students, who are primarily of Hispanic descent. This ethnic group typically does not enroll in programs far from their homes. In 2016, the Pew Research Center notes that Hispanic students are most likely to go to community colleges or other local educational programs<sup>10</sup>



## DEGREE PLANS

The degree plans of both the MA and MCB certification programs illustrate CHCP's commitment to the principles of 1) flexibility in learning, 2) student accountability, and 3) competency development. The MA certification program is a 900-clock-hour course of study, which is organized into 8 modules (see Table A). This program is 36 weeks in length.

The MA certification program prepares students to become entry-level employees in a variety of medical facilities. This is achieved via classroom and clinical hands-on training, as well as via professional

development. Graduates possess clinical and administrative skills, e.g., EKGs, injections, phlebotomy, examinations, patient histories, vital signs, insurance, and billing. These competencies enable them to perform both front- and back-office procedures in a physician's private practice, a group medical practice, or a long-term medical care facility, as well as a phlebotomist in a clinical laboratory, a physician's office, or a hospital. A career as a medical assistant will provide a student with a stepping stone to other possible future careers in health care. Table A outlines the degree plan for the CHCP MA certification program.

**TABLE A: MEDICAL ASSISTANT CERTIFICATION PROGRAM DEGREE<sup>11</sup>**

		LECTURE HOURS	LAB HOURS	EXTERN HOURS	TOTAL HOURS	SEMESTER CREDITS
<b>MODULE I</b>						
MSS130	Master Student/Study Skills	8	0	0	8	0.5
HIP130	HIPAA / OSHA / Infection Control	10	0	0	10	0.5
OAPT130	Overview of Anatomy, Physiology and Medical Terminology	48	0	0	48	3.0
<b>Total Module I</b>		<b>66</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>4.0</b>
<b>MODULE II</b>						
MA301	<b>A&amp;P A</b> - Nervous System and Special Senses	24	0	0	24	1.5
MA313	Medical Psychology/Human Relations*	48	0	0	48	3.0
MA302	Medical Clinical Procedures A	8	16	0	24	1.0
<b>Total Module II</b>		<b>80</b>	<b>16</b>	<b>0</b>	<b>96</b>	<b>5.5</b>
<b>MODULE III</b>						
MAAS213G	Medical Office Procedures/Management	48	0	0	48	3.0
MAAS211G	Medical Insurance and Managing Medical Records	48	0	0	48	3.0
<b>Total Module III</b>		<b>96</b>	<b>0</b>	<b>0</b>	<b>96</b>	<b>6.0</b>
<b>MODULE IV</b>						
MA303	<b>A&amp;P B</b> – Muscular, Skeletal and Digestive Systems	24	0	0	24	1.5
MA304	Medical Clinical Procedures B	20	28	0	48	1.5
MA305	Medical Law and Ethics	24	0	0	24	1.5
<b>Total Module IV</b>		<b>68</b>	<b>28</b>	<b>0</b>	<b>96</b>	<b>4.5</b>
<b>MODULE V</b>						
MA306	<b>A&amp;P C</b> - Cardiovascular, Lymphatic, Circulatory, and Respiratory Systems	32	0	0	32	2.0
MA307	Medical Clinical Procedures C	28	36	0	64	2.5
<b>Total Module V</b>		<b>60</b>	<b>36</b>	<b>0</b>	<b>96</b>	<b>4.5</b>
<b>MODULE VI</b>						
MA308	<b>A&amp;P D</b> – Integumentary and Endocrine Systems	32	0	0	32	2.0
MA309	Electronic Health Records	28	36	0	64	2.5
<b>Total Module VI</b>		<b>60</b>	<b>36</b>	<b>0</b>	<b>96</b>	<b>4.5</b>
<b>MODULE VII</b>						
MA310	<b>A&amp;P E</b> – Urinary and Reproductive System	32	0	0	32	2.0
MA311	Medical Clinical Procedures D	12	24	0	36	1.0
MA312	Medical Administrative Procedures	8	20	0	28	1.0
<b>Total Module VII</b>		<b>52</b>	<b>44</b>	<b>0</b>	<b>96</b>	<b>4.0</b>
<b>MODULE VIII</b>						
CSP201	Customer Service/Professionalism and Career Preparation	30	18	0	48	2.5
MAC301	Cert Prep	15	15		30	1.5
MAX301	Externship			180	180	4.0
<b>Total Module VIII</b>		<b>45</b>	<b>33</b>	<b>180</b>	<b>258</b>	<b>8.0</b>
<b>Total Hours/Credits</b>		<b>527</b>	<b>193</b>	<b>180</b>	<b>900</b>	<b>41.0</b>

The MCB certification program is designed to equip students with the skills and knowledge required to become entry-level employees in a variety of medical facilities. This is achieved through a comprehensive learning environment geared toward training students to complete medical billing forms; file medical insurance claims, both manually and by automation; and practically apply CPT-4, ICD-10, and HCPCS codes. Students will also gain experience in record-keeping practices for both hospitals and physician

offices; procedures in content and filing of patient medical records; and use of a variety of filing systems. In addition, students gain a general knowledge of anatomy, physiology, and medical terminology. Students will possess a basic knowledge of computers and medical management software. The program requires completion of 940 clock hours of class in 38 weeks. Table B illustrates the degree plan of the CHCP MCB certification program.

**TABLE B: MEDICAL CODING AND BILLING CERTIFICATION PROGRAM DEGREE PLAN<sup>12</sup>**

		LECTURE HOURS	LAB HOURS	EXTERN HOURS	TOTAL HOURS	SEMESTER CREDITS
<b>MODULE I</b>						
MSS130	Master Student/Study Skills	8	0	0	8	.5
HIP130	HIPAA / OSHA / Infection Control	10	0	0	10	.5
OAPT130	Overview of Anatomy, Physiology and Medical Terminology	48	0	0	48	3.0
<b>Total Module I</b>		<b>66</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>4.0</b>
<b>MODULE II</b>						
MA305	Medical Law and Ethics	24	0	0	24	1.5
MCB300	Principles of Insurance A	24	0	0	24	1.5
MCB301	Basics of Coding A: CPT/HCPCS	24	24	0	48	2.0
<b>Total Module II</b>		<b>72</b>	<b>24</b>	<b>0</b>	<b>96</b>	<b>5.0</b>
<b>MODULE III</b>						
MAAS212G	Medical Office Procedures/Management	48	0	0	48	3.0
MCB302	Basics of Coding B: ICD	12	12	0	24	1.0
MCB303	Principles of Insurance B	24	0	0	24	1.5
<b>Total Module III</b>		<b>84</b>	<b>12</b>	<b>0</b>	<b>96</b>	<b>5.5</b>
<b>MODULE IV</b>						
MCB304	Anatomy and Physiology/Medical Terminology A	24	0	0	24	1.5
MCB305	Coding A	12	12	0	24	1.0
MCB306	Principles of Insurance C	12	12	0	24	1.0
MCB307	Pathology A	24	0	0	24	1.5
<b>Total Module IV</b>		<b>72</b>	<b>24</b>	<b>0</b>	<b>96</b>	<b>5.0</b>
<b>MODULE V</b>						
MCB308	Anatomy and Physiology/Medical Terminology B	24	0	0	24	1.5
MCB309	Coding B	12	36	0	48	2.0
MCB310	Pathology B	24	0	0	24	1.5
<b>Total Module V</b>		<b>60</b>	<b>36</b>	<b>0</b>	<b>96</b>	<b>5.0</b>
<b>MODULE VI</b>						
MCB311	Anatomy and Physiology/Medical Terminology C	24	0	0	24	1.5
MCB312	Coding C	12	36	0	48	2.0
MCB313	Pathology C	24	0	0	24	1.5
<b>Total Module VI</b>		<b>60</b>	<b>36</b>	<b>0</b>	<b>96</b>	<b>5.0</b>
<b>MODULE VII</b>						
MA 309	Electronic Health Records	28	36	0	64	3.0
MCB314	Computer Applications	12	20	0	32	1.0
<b>Total Module VII</b>		<b>40</b>	<b>56</b>	<b>0</b>	<b>96</b>	<b>4.0</b>
<b>MODULE VIII</b>						
CSP201	Customer Service/Professionalism and Career Preparation	30	18	0	48	2.5
MCB315	MCB Cert Prep	30	15	0	45	2.5
MCB316	MCB Externship	0	0	205	205	4.5
<b>Total Module VIII</b>		<b>60</b>	<b>33</b>	<b>205</b>	<b>298</b>	<b>9.5</b>
<b>Total Hours/Credits</b>		<b>514</b>	<b>221</b>	<b>205</b>	<b>940</b>	<b>43.0</b>

## IMPACT OF DIGITAL LEARNING MATERIALS

The use of digital learning materials has been a critical component in the success of the CHCP MA and MCB blended/hybrid delivery methods. In a study by Hanover Research, an overwhelming majority of more than 1,000 U.S. college students surveyed indicated they felt digital learning technology had positively affected their learning—aiding concept retention and improving grades. Fifty-three percent of students prefer classes that use such tools (Hanover Research, 2017.)

The CHCP MA and MCB certification programs use the McGraw-Hill Education Connect<sup>®</sup> digital solution to support student learning. Connect is a homework and learning management platform that delivers interactive and adaptive tools for learning. SmartBook<sup>®</sup> is the adaptive and assignable version of the course textbook, which allows students to access the content of the book on a laptop or tablet. It provides students with individualized reading and practice based upon

assigned content and their demonstrated areas of weakness.

The Connect management platform provides instructor reports that analyze student performance and allow faculty to address potential student issues, providing students the opportunity to improve their success during the course, rather than at the end. Students have access to reports that allow them to study and review based upon their own performance. To determine the effectiveness of the Connect products, McGraw-Hill used case studies in which these products were used with a variety of students in different disciplines and institutions. These case studies compare a set of student and instructor variables before and after the Connect platform were instituted in a course, including student retention, certification pass rates, exam scores, final course grades, and instructor time management variables. Tables C and D document selected case study results from 2014 and 2015. For more information, access the [full report](#).

**TABLE C: EFFECTIVENESS OF THE CONNECT PLATFORM IN 2014 AND 2015<sup>13</sup>**

OUTCOME	BEFORE USE OF CONNECT PLATFORM	AFTER USE OF CONNECT PLATFORM
Retention Rate	71.1%	89.9%
Course Pass Rate	72.5%	85.5%
Average Exam Score	71.0%	80.1%

**TABLE D: IMPACT OF THE USE OF CONNECT ON INSTRUCTOR TIME MANAGEMENT<sup>14</sup>**

INSTRUCTOR ACTION	ESTIMATED MINUTES SPENT BEFORE USE OF CONNECT PLATFORM	ESTIMATED MINUTES SPENT AFTER USE OF CONNECT PLATFORM
Concept Application/Active Learning	77 min.	146 min.
Administration of Quizzes	75 min.	26 min.
Reviewing Homework	233 min.	38 min.
Grading	515 min.	168 min.

## USE OF THE DIGITAL PRODUCTS

At the beginning of their course of study, each CHCP student is given a tablet that becomes a part of their educational experience. CHCP recognizes that many of the students at the McAllen campus may not have been previously exposed to the convenience of technology. To address this issue, CHCP has equipped the technology with built-in support features, and campus faculty make a special effort to provide orientation to the technology as well. For example:

- CHCP provides a face-to-face orientation to the technology, and an online orientation is available throughout the course of study.
- Students have access to customer service online or via telephone. Students may also come to campus for assistance as needed.
- The assigned tablet has all of the necessary functions and related icons needed for online learning.

CHCP provides a single sign-on crossover to Connect, so students are able to connect without the hassle of passwords. CHCP instructors use Connect to manage their assigned course(s), which might include maintaining gradebooks, posting/syncing grades, monitoring student activity in the online environment, responding to student emails, supporting ongoing student discussions, and managing other student issues. Faculty members report that it is simple and effective to evaluate the students' engagement in the courses using the adaptive tools included in the McGraw-Hill Education products.

## SUPERIOR OUTCOMES

The first classes in the two highlighted programs were introduced to the McAllen community in November of 2015. Since that beginning, CHCP has seen a number of positive outcomes that support the effectiveness of its blended approach to delivering these curricula. For example, since the introduction of the two programs, 98 percent of students have been satisfied with both their courses and their instructors, as documented by aggregate scores on student satisfaction surveys from each program. Just as important as student satisfaction rates are the program's high retention rates: In 2016–17, the retention rate for students on the CHCP McAllen campus was 85 percent. The campus also has an 80% job placement rate for the same timeframe.

A common concern about certificate programs across the country is that students may not actually take their certification examinations after graduation if the state or employer does not require certification. This has not been a cause for concern in the highlighted CHCP programs. To date, all of the graduates in the MA and the MCB programs took the appropriate certification examinations, and a large majority were successful on their first attempt. Table E provides specific information about these important outcomes.

A final marker of the success of the programs at the CHCP McAllen campus is time for graduation. From November 1, 2015, to October 31, 2017, the average time for graduation for Medical Assisting, Medical Coding and Billing-HIT and PPT programs was 9 months to graduation, including the externship and certification testing, with an average graduation rate across the campus of 80 percent.

**TABLE E: CHCP STUDENT OUTCOMES<sup>15</sup>**

OUTCOME	PERCENTAGE OF STUDENTS
CHCP graduates of the MA program who took the appropriate certification program	100%
Certification examination passing rate	98.61%
CHCP graduates of the MCB program who took the certification exams	100%
Certification examination passing rate for both the MA and the MCB programs	99%

The outcomes of the CHCP MA and MCB programs reported thus far are impressive and above the national levels for such programs. The College is proud of these results and credits its success to three factors: 1) the engagement and work of the students; 2) the commitment of the faculty to use a well-developed curriculum, effective teaching–learning strategies, and a process of student accountability; and 3) the use of the blended/hybrid approach to course delivery, which provides students with the necessary flexibility to succeed in the programs within the context of the responsibilities of their own lives. Most of the CHCP students are the first in their families to attend college, so these programs are providing life-altering opportunities for students to change their lives and the lives of their families.



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