

## **Section 4: Candidate Preparation**

### **Mathematics (EX): Elementary Minor and Major; Secondary Minor and Major**

#### **A. Perceptions of Preparation**

*Postponed until 2005-2010*

UDM is investigating a variety of computer programs to facilitate the continuous collection of such candidate perceptions. The Education faculty is working with the MDE committees and staff to develop a common survey form.

#### **B. Content**

MTTC pass rates for UDM Mathematics teacher certification candidates from January 1998 to October 2004 are listed in Table 1 following this explanation. The scores include scores from students who have taken the test more than once before passing, as well as data from students who send scores and are not enrolled in UDM. Elementary and secondary candidate scores are reported together for the 1999 – 2004 test periods; they are reported separately in Tables 2 and 3, which list only first time test takers who tested between October, 2001 and July, 2004.

The majority of teacher certification candidates are post-degree students who possess an undergraduate degree with a major and a minor and are enrolled in a UDM Teacher Education program to become certified teachers. Most of these students did not complete their undergraduate course work at UDM; many have changed careers and completed their course work up to twenty years ago. As long as these non-traditional, transfer students meet UDM requirements for admission to UDM and to the Education program of a 2.5 overall GPA, a 2.7 in their major and/or minor for which they are seeking certification, and a pass score on the Basic Skills test, they may begin taking Education courses prior to sitting for the MTTC Content Test. The Education Department is currently analyzing its Pass Rates data to determine if the rate is a result of policy and/or a result of course content taught at UDM. For example, if UDM graduates have a significantly higher pass rate than those who have transferred to UDM, then the Department must consider changing its admission policies about when students are admitted to Education in relation to passing the MTTC. If no significant difference is discovered, then the Departments' ongoing review of their academic course content, pedagogy, and instructional methods must be investigated from that perspective and appropriate adjustments made. The Mathematics and Education faculty members will continue to address the MTTC pass rate for our candidates.

To address the needs of students seeking teacher certification, the Education faculty members work individually with the candidates to improve their scores in a variety of ways. They help candidates analyze the MTTC results and suggest ways to study for the test. They encourage candidates to engage a tutor and/or to talk/study with professors in the Mathematics and Computer Science Department. Tutors are also available through the Learning center and University Academic Services. Education instructors refer candidates to standard test taking practice books and to web sites which provide review of mathematical content. If the candidate's problem deals with passing the basic skills test, which may happen with career changers who are post-degree and masters students, the candidates use the UDM Learning Center that deals with basic skills of writing, math, reading, and test taking to enhance their knowledge and skills. Two developmental Mathematics courses (MTH 080 Basic Mathematics and MTH 095 Elementary Algebra) are available to students struggling in that area. In 2005, this course will be offered from the University Academic Services (UAS) and taught by instructors specializing in developmental teaching. Tutoring workshops, especially for the Mathematics Basic Skills Test are also set up as requested by students. Cyclical review of our candidates' performance in their MTTC special areas indicate an ongoing need for review of program design and for strategies to assist students in successfully taking the specialty area tests.

**Table 1:**

**Mathematics (EX) MTTC Content Test Passing Rate  
From October, 1998 through July, 2004**

Test Date	Failed	Passed	Sum	Passing Rate %	
10-03-98	10	9	19	47%	
1-09-1999	9	9	18	50%	
4-17-1999	14	5	19	26%	
7-17-1999	14	7	21	33%	1998-1999 Pass Rate: 39%
10-02-1999	4	2	6	33%	
1-08-2000	13	6	19	32%	
4-15-2000	8	8	16	50%	
7-15-2000	16	8	24	33%	1999-00 Pass Rate: 37%
10-07-2000	9	9	18	50%	
1-13-2001	12	5	17	29%	
4-20-2001	1	0	1	0%	
4-21-2001	9	6	15	40%	
7-14-2001	10	8	18	44%	2000-01 Pass Rate: 41%
10-06-2001	2	3	5	60%	
1-12-2002	7	4	11	36%	
4-20-2002	7	7	14	50%	
7-13-2002	6	6	12	50%	2001-02 Pass Rate: 48%
10-05-2002	6	4	10	40%	
1-11-2003	4	4	8	50%	
4-12-2003	11	7	18	39%	
7-12-2003	10	10	20	50%	2002-03 Pass Rate: 45%
10-18-2003	6	5	11	45%	
1-10-2004	8	3	11	27%	
4-03-2004	7	4	11	36%	
7-10-2004	13	6	19	32%	2003-04 Pass Rate: 35%

**Table 2: Results for University of Detroit Mercy Students in Secondary Mathematics (first time test takers only)**

Test Years	Number of Examinees	Number Passed	% Passed	Number Failed	% Failed
October, 2001 – July, 2004	44	36	81.8%	8	18.2%

**Table 3: Results for University of Detroit Mercy Students in Elementary Mathematics (first time test takers only)**

Test Years	Number of Examinees	Number Passed	% Passed	Number Failed	% Failed
October, 2001 – July, 2004	41	21	51.2%	20	48.8%

**C. Pedagogy**

*Postponed until 2005-2010*

UDM is investigating a variety of computer programs to facilitate the continuous evaluation of pedagogy. The Education faculty is working with the MDE committees and staff to develop a common survey form

**D. Cooperating Teacher/Mentor Perceptions**

*Postponed until 2005-2010*

UDM is investigating a variety of computer programs to facilitate the continuous collection of cooperating teacher/mentor perceptions. The Education faculty is working with the MDE committees and staff to develop a common survey form.

**E. Content-Area Faculty Perceptions**

*Postponed until 2005-2010*

UDM is investigating a variety of computer programs to facilitate the continuous collection of content-area faculty perceptions. The Education faculty is working with the MDE committees and staff to develop a common survey form.