

# 2007 Curriculum Reconciliation

## COMPUTER SCIENCE

For CS 112, add: "Students who took CS 111 at another institution should check their articulation agreement to see if they are required to take CS 112."

For CS 212, add: "Students who took CS 211 at another institution should check their articulation agreement to see if they are required to take CS 212."

For CS 232, add: "Students who took CS 231 at another institution should check their articulation agreement to see if they are required to take CS 232."

**Rationale:** The previous descriptions for these courses did not make clear the purpose of having these 1 unit classes. Students did not realize they had to take the courses.

## MATHEMATICS

### **Title and Description Change:**

OLD COURSE	NEW COURSE
<p><b>MATH 540 (3)</b>  <b>Concrete Mathematics</b>                      Blend of continuous and discrete topics including sums, recurrences, elementary number theory, binomial coefficients, generating functions, discrete probability, and asymptotic methods. <i>Prerequisites: MATH 350 or 370 or 470 or 472 or 474 or consent of instructor.</i></p>	<p><b>MATH 540 (3)</b>  <b>Structural Graph Theory</b>                      Trees and cycles; independence and matchings; graph partitioning, packing and covering; tournaments; flows; algorithmic aspects; topological graph theory; facility location.  <i>Prerequisites: MATH 350 or 370 or 470 or 472 or 474 or consent of instructor.</i></p> <p>Please note: The UCC did not approve the changes for MATH 540 as it seems to be a completely new course.</p>
<p><b>MATH 542 (3)</b>  <b>Algorithmic Graph Theory</b>                      Introduction to graphs; algorithmic complexity; depth-first and breadth-first search; trees; paths and distance; network flows; matchings and factorizations; Eulerian and Hamiltonian Graphs; traveling salesman problem; planarity; vertex and edge colorings.  <i>Prerequisites: MATH 350 or 370 or</i></p>	<p><b>MATH 542 (3)</b>  <b>Advanced Graph Theory</b>                      Graphs and digraphs; traversability; factorization; planarity and embedding; coloring; graph Ramsey theory; probabilistic methods; extremal graph theory; algebraic graph theory.  <i>Prerequisites: MATH 350 or 370 or 470 or 472 or 474 or consent of instructor.</i></p>

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<i>470 or 472 or 474 or consent of instructor.</i>	
<p><b>MATH 544 (3)</b>  <b>Applied Combinatorics</b>            Counting; Ramsey Theory; experimental designs; finite projective planes; combinatorial optimization; combinatorial set systems; matroids; axiomatic social choice; scheduling theory; location of facilities on networks. <i>Prerequisites: MATH 350 or 370 or 470 or 472 or 474 or consent of instructor.</i></p>	<p><b>MATH 544 (3)</b>  <b>Advanced Combinatorics</b>            Enumeration; combinatorial set systems; combinatorial designs; Ramsey theory; combinatorial optimization; matroids; axiomatic social choice. <i>Prerequisites: MATH 350 or 370 or 470 or 472 or 474 or consent of instructor.</i></p>

**Rationale:** These courses were designed before two of the three faculty teaching these courses joined the department, and the content that is typically covered has shifted. Catalog changes are necessary to realign the course description with the material covered in the courses.

MATH 542: course description has been broadened to allow more flexibility in covering advanced graph theory. Algorithmic aspects are deemphasized so that other advanced techniques in graph theory can be discussed. This led also to the change in the course name.

MATH 544: reordering of the topics covered in the course and the deletion of topics that are closer to graph theory than combinatorics. Increased emphasis on advanced techniques over applications, leading to the change in the course name.

**Academic Affairs Base Budget  
Overall Summary**

<u>Available Perm Funds</u>	<u>2006-07</u>	<u>2007-08</u> <u>Allocations</u>	<u>2008-2009</u> <u>new hiring \$\$ alloc</u>	<u>2008-2009</u> <u>no new \$\$</u>	<u>2008-2009</u> <u>campus MYBM inc</u>
New Perm Dollars (assume 20:1)	\$ 1,330,405	\$ 2,834,599	0	\$ -	
Other Perm Operating Funds	\$ 33,416,620	\$ 37,044,465	39,879,064	\$ 39,879,064	\$ 39,879,064
<b>Available Perm Funds</b>	<b>\$ 34,747,025</b>	<b>\$ 39,879,064</b>	<b>39,879,064</b>	<b>\$ 39,879,064</b>	<b>\$ 39,879,064</b>
<b>Uses of Funds Permanent</b>					
Anticipated salaries (approved)	\$ 25,099,482	\$ 27,444,045	28,751,611	\$ 27,444,045	\$ 27,444,045
Perm reserve for New Faculty Hires	\$ 1,330,405	\$ 1,307,566	0	\$ -	
Benefits	\$ 115,905	\$ 161,423	0	0	0
Operating Expenses (06-07 level)	\$ 15,005,726	\$ 16,507,956	16,507,956	\$ 16,507,956	\$ 16,507,956
Additional Perm Expenditures for AY 07-08	\$ -				
<b>Total Uses of Perm Funds</b>	<b>\$ 41,551,518</b>	<b>\$ 45,420,990</b>	<b>45,259,567</b>	<b>\$ 43,952,001</b>	<b>\$ 43,952,001</b>
<b>Permanent Funding "Gap" (line 7 minus line 14)</b>	<b>\$ (6,804,493)</b>	<b>\$ (5,541,926)</b>	<b>(\$5,380,503)</b>	<b>\$ (4,072,943)</b>	<b>\$ (4,072,943)</b>
<b>Available Fiscal Funds</b>					
Salary Savings for Faculty who will start the next AY	\$ 1,330,405	\$ 1,307,566	0	\$ -	
UBC Allocation	\$ 465,148	\$ 554,250	0	\$ -	
Sweep Exemptions	\$ 362,964	\$ 229,316	0	\$ -	
Budget Restoration funding for positive pay		\$ 137,185	0	\$ -	
Exceeding Enrollment Funding	\$ 1,000,000	\$ 275,000	0	\$ -	\$ 300,000
Fiscal Salary Savings	\$ 1,833,899	\$ 1,966,515	1,966,515	\$ 1,966,515	\$ 1,966,515
Fiscal Offsets (Abatements, etc.)	\$ 3,925,433	\$ 4,684,973	4,684,973	\$ 4,684,973	\$ 4,684,973
<b>Available Fiscal Funds</b>	<b>\$ 8,917,849</b>	<b>\$ 9,154,805</b>	<b>6,651,488</b>	<b>\$ 6,651,488</b>	<b>\$ 6,951,488</b>
<b>Uses of Fiscal Funds</b>					
Operating Expenses (not in line 12)	\$ 2,772,778	\$ 3,337,879	3,337,879	\$ 3,337,879	\$ 3,337,879
Other potential one-time fiscal expenditures	0				
<b>Total Uses of Fiscal Funds</b>	<b>\$ 2,772,778</b>	<b>\$ 3,337,879</b>	<b>3,337,879</b>	<b>\$ 3,337,879</b>	<b>\$ 3,337,879</b>
<b>Total Available Funds (line 5 plus line 25)</b>	<b>\$ 43,664,874</b>	<b>\$ 49,033,869</b>	<b>\$46,530,552</b>	<b>\$ 46,530,552</b>	<b>\$ 46,830,552</b>
<b>Total Uses of Funds (line 13 plus line 30)</b>	<b>\$ 44,324,296</b>	<b>\$ 48,758,869</b>	<b>\$ 48,597,446</b>	<b>\$ 47,289,880</b>	<b>\$ 47,289,880</b>
<b>Academic Affairs share of campus no-growth shortfall</b>					<b>\$ 1,887,647</b>
<b>Overall funds (line 32 minus line 34 minus line 36)</b>	<b>\$ (659,422)</b>	<b>\$ 275,000</b>	<b>(\$2,066,894)</b>	<b>\$ (759,328)</b>	<b>\$ (2,346,975)</b>

