A Discussion of the Whitman Course Schedule

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This report discusses Whitman's current course schedule. How many classes meet at what time? Recent discussions speculate that certain time blocks are overused and others underused, making room scheduling difficult and producing more time conflicts for students. The feasibility of an alternate course schedule is also discussed. This report uses courses from 2004-05 academic year to examine these issues.

The Current Course Schedule

Whitman's current course schedule consists of 10 time blocks, listed in **Table 1**. Days in (parenthesis) are optional course meeting days. While most time blocks meet for 150 minutes of course time (3 50-minute class sessions), others meet for 160 minutes of course time (2 80-minute class sessions). With the optional day, a course can also meet 200 minutes per week (4 50-minute class sessions), or 240 minutes per week (3 80-minute class sessions). Thus, courses counting for the standard 3 or 4 credits can meet anywhere from 150 to 240 minutes per week.

Table 1: The Official Whitman College Course Schedule[1]

Days	Time
MWF	8:00 M, 9:00 WF
MTTH(F)	9:00 – 9:50
MWF	10:00 M, 11:00 WF
MTTH(F)	11:00 – 11:50
MW(F)	1:00 – 2:20
MW(F)	2:30 – 3:50
T(W)THF	8:00 – 8:50
T(W)THF	10:00 – 10:50
TTH	1:00 – 2:20
TTH	2:30 – 3:50

There are several variations of this course schedule. For example, some courses use the optional day but not one of the "required" days, such as a course that meets TWTh from 10:00-10:50. Other courses use a modified version of the MW(F) afternoon blocks, meeting MWF 1:00-1:50, rather than MW 1:00-2:20. Thus, this schedule provides a certain amount of flexibility for professors to choose the days of the week on which they teach. It also provides a certain amount of flexibility for faculty members who want their classes to meet more than 150-160 minutes per week. As demonstrated by the "unofficial" schedule in Appendix A, faculty create many variations on the "official" schedule.

It is important to note that it is possible for courses scheduled in different time blocks to conflict. For example, a course in the 8M, 9 WF block can conflict with a course in the 9

[1] The Unofficial Whitman College Course Schedule can be found as Appendix 1.

MTTh(F) slot if the optional Friday time is used. The 11 MTTh(F) slot conflicts with Core if the optional Friday meeting is used.

While the Registrar has official scheduling rules for departments regarding the number of courses allowed in a single time block, courses are not evenly distributed across time blocks. The two time blocks with 8 a.m. meeting times are clearly less popular. The 2:30 MW block is not popular with the exception of science labs. In general, apart from science labs, later morning time blocks tend to be the most popular slots; including science labs in the data shows afternoon time blocks to be more popular. **Table 2** shows the number of courses (including lab sections) meeting during each time block during the 2004-05 academic year. Activity courses and courses with a meeting time of "Arranged" are not included.

About 8% of courses meet during multiple time blocks, and about 75% of these "multiple-block" courses are studio art courses that meet for 2 hours per class session (8-10 MW, for example). Most multiple-block courses cover two blocks, although some cover three, and in one instance four. For Table 2, these courses, along with lab sections, are counted more than once, distributed into their various blocks to most accurately reflect the number of courses meeting during each time.

Table 2: Number of courses and labs meeting during each time block during the 2004-05 Academic Year

	2004FA		2005SP		Grand Total		Total (No labs)	
Time Block	N	%	N	%	N	%	N	%
1 MW(F)	64	13.17%	69	14.32%	133	13.74%	96	12.2%
1 TTh	62	12.76%	65	13.49%	127	13.12%	84	10.6%
10 M 11 WF	40	8.23%	45	9.34%	85	8.78%	84	10.6%
10 T(W)ThF	46	9.47%	47	9.75%	93	9.61%	92	11.7%
11 MTTh(F)	57	11.73%	49	10.17%	106	10.95%	104	13.2%
2:30 MW(F)	52	10.70%	39	8.09%	91	9.40%	52	6.6%
2:30 TTh	55	11.32%	59	12.24%	114	11.78%	73	9.3%
8 M 9 WF	16	3.29%	17	3.53%	33	3.41%	32	4.1%
8 T(W)ThF	15	3.09%	12	2.49%	27	2.79%	27	3.4%
9 MTTh(F)	42	8.64%	44	9.13%	86	8.88%	86	10.9%
Afternoon (4-6)	3	0.62%	0	0.00%	3	0.31%	2	0.3%
Evening	27	5.56%	30	6.22%	57	5.89%	48	6.1%
Noon	7	1.44%	6	1.24%	13	1.34%	9	1.1%
Grand Total	486	100.00%	482	100.00%	968	100.00%	789	100.0%

* Activity courses and "arranged" courses are not included in the data

While the table shows that there is a slight preference towards a few time blocks and away from others, further probing into the data reveals that introductory level courses overwhelmingly meet during a few morning time blocks. Removing Core courses from the data, about 50% of 100 level courses met during one of the three non-Core, non-8 a.m. morning time blocks during the 2004-05 academic year (see **Table 3**), while about 25% met during one of the 4 blocks with either an 8 a.m. or 2:30 pm start time.

This can create problems for students, especially for first-year students trying to find classes over the summer. When nearly 20% of 100-level courses meet at the same time, it limits the options entering first-year students have for course selection.

Table 3: Number of non-Core 100-level courses meeting during each time block

	2004FA		2005SP		Grand Total	
Time Block	N	%	N	%	N	%
1 MW(F)	8	7.0%	17	16.2%	25	11.4%
1 TTh	12	10.5%	10	9.5%	22	10.0%
10 M 11 WF	0	0.0%	3	2.9%	3	1.4%
10 T(W)ThF	18	15.8%	17	16.2%	35	16.0%
11 MTTh(F)	22	19.3%	16	15.2%	38	17.4%
2:30 MW(F)	6	5.3%	5	4.8%	11	5.0%
2:30 TTh	9	7.9%	6	5.7%	15	6.8%
8 M 9 WF	7	6.1%	8	7.6%	15	6.8%
8 T(W)ThF	8	7.0%	5	4.8%	13	5.9%
9 MTTh(F)	19	16.7%	16	15.2%	35	16.0%
Evening	4	3.5%	1	1.0%	5	2.3%
Noon	1	0.9%	1	1.0%	2	0.9%
Total	114	100.0%	105	100.0%	219	100.0%

An Alternate Course Schedule?

Should Whitman College change its course schedule? We maintain our current schedule primarily to accommodate courses that meet more than three times per week. The two-day time blocks meet for 160 minutes per week, while the three-day blocks meet for 150 minutes per week. Adding the optional extra day allows courses to meet up to 200 or 240 minutes per week. At the moment, not including science labs or Studio Art courses (nearly all of which meet for extra time) only about 9% of courses use this extra time.

A possible alternate course schedule contains 12 time blocks instead of 10, and is a simpler schedule in that courses meet either on Monday, Wednesday, and Friday; or on Tuesday and Thursday (see **Table 4**). This schedule also includes 5 morning time blocks that do not have an 8 a.m. meeting time, adding an additional "prime time" morning slot.

Table 4: An Alternate Course Schedule

Days	Time
MWF	8:00 – 8:50
MWF	9:00 – 9:50
MWF	10:00 – 10:50
MWF	11:00 – 11:50
MWF	1:00 – 1:50
MWF	2:00 – 2:50
MWF	3:00 – 3:50
TTh	8:00 – 9:15
TTh	9:25 – 10:40
TTh	10:50 – 12:05
TTh	1:10 – 2:25
TTh	2:35 – 3:50

A drawback to this schedule is that it does not allow for courses to meet more than 150 minutes per week. As noted above, in 2004-05 54 courses, or about 8.8% of all courses (not including studio art or science labs) met for "extra time," more than 150-160 minutes per week. Under this schedule, a course that required extra time would simply propose to use more than one time block. For example, a course that currently meets 8 TWThF would use both the 8 MWF and 8 TTh blocks. Another multiple-block option could be 9 MWF and 9:25-10:15 on TTh.

Can a different schedule accommodate this many courses using an additional time block? In 2004-05, 18 additional time blocks were used by non-lab, non-studio art courses. Some of these were classes using extra time, most were classes using an "illegal" time slot (such as 1-1:50 MTTh). The above alternate schedule would require 54 additional time blocks for non-lab, non-studio art courses that meet for extra time. However, the following analysis suggests the schedule is made less crowded by adding two additional time slots (12 instead of 10), even with more classes using multiple blocks. For example:

In 2004-05
(652 non-lab, non SA courses + 18 extra time blocks used) ÷ 10 time blocks = 67.0 sections per time block

Under the above alternate schedule
(652 non-lab, non SA courses + 54 extra time blocks used ÷ 12 time blocks) = 58.8 sections per time block.

Further, incorporating studio art and lab sections produces a similar result. Studio Art courses will likely use the same number of time blocks as they do currently. Science labs will use 3 afternoon time blocks on M, W or F, so the number of blocks used is adjusted[2].

In 2004-05
(652 non-lab, non-SA courses + 18 extra blocks + 104 blocks used by Studio Art + 179 blocks used by labs) ÷ 10 time blocks = 95.3 sections per time block.

Under the above alternate schedule
(652 non-lab, non-SA courses + 54 extra blocks + 104 blocks used by Studio Art + 239 blocks used by labs) ÷ 12 time blocks = 87.4 sections per time block.

Conclusion

Whitman's course schedule is designed to accommodate faculty who want to teach more than 150-160 minutes per week. The schedule allows for much flexibility in scheduling, and faculty take advantage of this flexibility in deciding course times. However, apart from language courses, very few take advantage of the opportunity for additional class time. This may be because faculty do not feel as though they need the additional time, or because they are unaware that they can use additional time each week.

[2] This value is computed as the number of blocks used by science labs under the current schedule increased by one-third. In this case, (179*.333)+179 = ~239. If anything, this is an overestimate, as labs meeting on Tuesday or Thursday will still use 2 time blocks instead of 3.

The schedule is irregular enough to produce some confusion, and courses are sometimes scheduled across multiple time slots. Courses, particularly 100 level courses, are disproportionately scheduled into three morning time slots, making it more difficult for first-year students to choose classes, and making room scheduling more difficult. Finally, by having only 10 time slots the current schedule is less efficient than it could be. A schedule with 12 time slots might be simpler, more intuitive, and more efficient.

Appendix A: The Unofficial Whitman College Course Schedule

Course Meeting Time	N
F 01:00PM 01:50PM	1
F 01:00PM 02:00PM	9
F 01:00PM 02:20PM	2
M 01:00PM 02:20PM	2
M 01:00PM 04:00PM	15
M 06:00PM 09:00PM	2
M 06:30PM 08:00PM W 06:30PM 09:00PM	2
M 07:00PM 09:00PM	1
M 07:00PM 10:00PM	4
M 07:00PM 10:00PM TTH 02:30PM 03:50PM	1
M 07:30PM 09:00PM	2
M 07:30PM 10:30PM	1
M 08:00AM 08:50AM WF 09:00AM 09:50AM	15
M 09:00PM 10:30PM	2
M 10:00AM 10:50AM WF 11:00AM 11:50AM	73
M 12:00PM 12:50PM	3
M 12:30PM 04:00PM	2
MF 01:00PM 02:20PM	1
MTH 08:00AM 09:55AM	6
MTTH 01:00PM 01:50PM	2
MTTH 09:00AM 09:50AM	50
MTTH 11:00AM 11:50AM	69
MTTH 11:00AM 11:50AM M 07:00PM 09:50PM	1
MTTHF 11:00AM 11:50AM	1
MTTHF 09:00AM 09:50AM	12
MTTHF 10:00AM 10:50AM	1
MTWTH 04:00PM 05:30PM	1
MTWTHF 09:00AM 09:50AM	2
MW 01:00PM 02:20PM	35
MW 01:00PM 03:00PM	7
MW 01:00PM 04:00PM	2
MW 02:30PM 03:50PM	45
MW 06:00PM 07:20PM	1
MW 06:00PM 08:00PM	2
MW 06:30PM 07:50PM	1
MW 07:00PM 09:00PM	1
MW 08:00AM 09:55AM	2
MW 10:00AM 11:20AM	1
MW 10:00AM 11:55AM	5
MW 11:00AM 11:50AM F 02:00PM 04:00PM	1
MW 11:00AM 12:20PM	2
MWF 01:00PM 01:50PM	26
MWF 01:00PM 02:20PM	4
MWF 02:30PM 03:20PM	4
MWF 02:30PM 03:50PM	2
MWF 09:00AM 09:50AM	1
T 01:00PM 03:00PM	1

T	01:00PM 04:00PM			18
T	01:00PM 04:30PM			1
T	04:00PM 04:50PM			1
T	06:00PM 07:00PM			3
T	06:00PM 08:50PM			1
T	06:00PM 09:00PM			1
T	07:00PM 08:30PM			1
T	07:00PM 09:30PM			1
T	07:00PM 10:00PM			8
TH	01:00PM 02:20PM			2
TH	01:00PM 03:30PM			1
TH	01:00PM 04:00PM			15
TH	02:30PM 03:20PM			2
TH	02:30PM 03:50PM			2
TH	06:00PM 07:00PM			1
TH	06:00PM 09:00PM			1
TH	06:30PM 07:25PM			1
TH	07:00PM 10:00PM			2
TH	07:30PM 09:30PM			3
TH	12:15PM 12:50PM			2
THF	10:00AM 10:50AM			1
TTH	01:00PM 01:50PM			5
TTH	01:00PM 02:20PM			65
TTH	01:00PM 03:00PM			11
TTH	01:00PM 04:00PM			4
TTH	01:30PM 02:20PM			1
TTH	02:30PM 03:50PM			56
TTH	02:30PM 03:50PM	M	07:00PM 10:00PM	2
TTH	02:30PM 03:55PM			1
TTH	06:00PM 07:20PM			2
TTH	07:00PM 09:00PM			4
TTH	08:00AM 09:55AM			2
TTH	10:00AM 10:50AM			3
TTH	10:00AM 11:55AM			10
TTH	11:00AM 11:50AM			5
TTH	11:00AM 12:20PM			8
TTHF	01:00PM 01:50PM			1
TTHF	08:00AM 08:50AM			4
TTHF	09:00AM 09:50AM			7
TTHF	10:00AM 10:50AM			32
TTHF	11:00AM 11:50AM			3
TWTH	08:00AM 08:50AM			3
TWTH	10:00AM 10:50AM			17
TWTHF	10:00AM 10:50AM			2
TWTHF	08:00AM 08:50AM			10
TWTHF	09:00AM 09:50AM			3
TWTHF	10:00AM 10:50AM			19
TWTHF	10:00AM 10:50AM	M	07:00PM 07:50PM	2
W	01:00PM 04:00PM			17
W	02:30PM 03:50PM			3

W	06:00PM 07:00PM	1
W	06:00PM 08:30PM	3
W	06:00PM 09:00PM	1
W	07:00PM 10:00PM	2
W	07:30PM 10:00PM	1
W	09:00AM 09:50AM	3
W	09:00AM 11:50AM	1
W	11:00AM 11:50AM	2
W	12:00PM 12:50PM	2