



Aalto University
School of Engineering

Operation Management in Construction

Assignment #1 – Location-Based Planning grading criteria

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Assignment task

- **Groups of 3:**
 - Import starting data to Schedule Planner / Takt.ing
 - Plan a location-based schedule which fulfills the requirements
 - Run risk analysis of the schedule (Schedule Planner) or analyze risks and buffers manually (Takt.ing)
 - Write a final report

Evaluation criteria – team work

TOPIC	1 point	2 points	3 points	4 points	5 points
Contribution of ideas	Rarely provides useful ideas when participating in the team assignment. May refuse to participate in discussions		Sometimes provides useful ideas when participating in the team assignment. A satisfactory group member who does what is required.		Routinely provides useful ideas when participating in the team assignment.
Problem-solving	Does not try to solve problems or help others solve problems. Lets others do the work		Does not suggest or refine solutions but is willing to try out solutions suggested by others		Actively looks for and suggests solutions to problems
Attitude	Is often publicly critical of the project or the work of other members of the group. Is often negative about the tasks.		Is rarely publicly critical of the project or the work of others. Usually has a positive attitude about the task(s)		Is never publicly critical of the project or the work of others. Always has a positive attitude about the task.
Working with others	Rarely listens to, shares with or supports the efforts of others. Often is not a good team player		Often listens to, shares with and supports the efforts of others but may not always be a good team member		Almost always listens to, shares with, and supports the effort of others. Tries to keep people working well together.
Producing deliverables	Did not participate in preparing the schedule (= using the software) or writing the final report.		Participated less than others in preparing the schedule (= using the software) or writing the final report.		Participated equally in preparing the schedule (= using the software) or writing the final report

Team work is evaluated twice – once at the mid tutorial and once in the end

- **Evaluation is performed by the team in MyCourses. Each team member evaluates own performance and other members**
- **Mid-term feedback can be used to improve team work**
- **End of assignment feedback will be used to distribute scores of the assignment**

Evaluation criteria for final project schedule (Camino)

TOPIC	1 point	2 points	3 points	4 points	5 points
Following rules	<p>The assignment broke three or more rules :</p> <ul style="list-style-type: none"> - Total hours was not 65342 hours - Tasks were crossing in flowline view - More resources were used than maximum allowed - Structure or Roofing task were changed <ul style="list-style-type: none"> - Dependencies were incorrect - Production factors were changed 		<p>The assignment did not break the most important rules:</p> <ul style="list-style-type: none"> - total hours 65342 hours - Structure or Roofing task should not be changed - Production factors should not be changed <p>and did not break badly less important rules:</p> <ul style="list-style-type: none"> - no more than 2 instances of crossing - minor extra resources in some tasks - minor dependency errors 		<p>The assignment did not break any of the rules:</p> <ul style="list-style-type: none"> - Total hours were 65342 hours - Tasks were not crossing in flowline view - No more resources were used than maximum allowed - Structure or Roofing task were not changed - Dependencies were correct - Production factors were not changed
Empty areas in the schedule (Note: disregard CENTER location)	In the beginning and end of tasks, after fireproofing task, there were 9+ gaps of more than four weeks	7-8 gaps	In the beginning and end of tasks, after fireproofing task, there were 5-6 gaps of more than four weeks	3-4 gaps	In the beginning and end of tasks, after fireproofing task, there were only 1 or 2 gaps of more than four weeks
Levelness of resources	There were major resource fluctuations for more than 5 contractors	4	There were no major resource fluctuations (first up and then down) for more than three contractor	2	There were no major resource fluctuations (first up and then down) for more than one contractor
Risk analysis	Risk analysis was not conducted		Risk analysis was conducted but few buffers were used or they were added in inappropriate locations / tasks		Risk analysis was conducted and buffers were added in appropriate locations

Evaluation criteria for final project schedule (Juslenia)

TOPIC	1 point	2 points	3 points	4 points	5 points
Following rules	<p>The assignment broke three or more rules :</p> <ul style="list-style-type: none"> - Total hours was not 92718 hours - Tasks were crossing in flowline view - More resources were used than maximum allowed - Dependencies were incorrect - Production factors were changed 		<p>The assignment did not break the most important rules:</p> <ul style="list-style-type: none"> - total hours 92718 hours - Production factors should not be changed <p>and did not break badly less important rules:</p> <ul style="list-style-type: none"> - no more than 2 instances of crossing - minor extra resources in some tasks - minor dependency errors 		<p>The assignment did not break any of the rules:</p> <ul style="list-style-type: none"> - Total hours were 92718 hours - Tasks were not crossing in flowline view - No more resources were used than maximum allowed - Dependencies were correct - Production factors were not changed
Empty areas in the schedule (Note: disregard 6th floor)	In the beginning and end of tasks, after fireproofing task, there were 10+ gaps of more than four weeks	9-10 gaps	In the beginning and end of tasks, after fireproofing task, there were 7-8 gaps of more than four weeks	5-6 gaps	In the beginning and end of tasks, there were only 3 or 4 gaps of more than four weeks
Levelness of resources (note: disregard complete demobilization of some contractors in mid-project)	There were major resource fluctuations for more than 5 contractors	4	There were no major resource fluctuations (first up and then down) for more than three contractor	2	There were no major resource fluctuations (first up and then down) for more than one contractor
Risk analysis	Risk analysis was not conducted		Risk analysis was conducted but few buffers were used or they were added in inappropriate locations / tasks		Risk analysis was conducted and buffers were added in appropriate locations

Evaluation criteria for final project report

Subtopic	1 point	2 points	3 points	4 points	5 points
Quality of report	The report is unorganized, unclear and not concise and does not convey the relevant information		The report is organized and concise and conveys much of the relevant information		The report is well organized, clear and concise and appropriately conveys the relevant information
Quality of analysis	The report does not appropriately describe the solution or does not adequately answer the questions		The report describes the solution and analyzes the process and attempts to answer all the questions. Deep understanding of the topic is not demonstrated by the report.		The report completely describes the process followed, the resulting solution and demonstrates deep understanding of risks involved and answers all the questions very well

Peer evaluation of final schedule and report

- **After the assignment is completed, it will be distributed to another assignment group for peer review**
- **The three members of the other group will evaluate your work based on the criteria above and they will each write a peer evaluation report**
- **The final group grade is based on the average grade of acceptable peer review reports. Peer review reports are reviewed and graded by the teacher.**

Report

- **Assignment report – answer the following questions and illustrate with snapshots from flowline, takt or resource graph**
 - Which process did you use to optimize the schedule?
 - Which subcontractor is the bottleneck in the schedule?
 - Which subcontractor has the most uneven use of resources throughout the project?
 - Which subcontractor will have to mobilize / re-mobilize most often? Why?
 - What would be the difference if you used the LBMS / takt planning approach?
 - Use the grading criteria to self-evaluate your own group's work

Thank you Questions & Comments